The MODERN HOSPITAL

Vol. I September, 1913 No. 1

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Application pending for entry at Postoffice, St. Louis, Mo., as second-class matter.

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical and Nursing Services

Vol I September, 1913 No. 1

HOSPITAL GROWTH MARKS DAWN OF NEW ERA.

Vast Increase In Number and Variety of Institutions Is Chief Factor In Reshaping Modern Society.

By A. J. OCHSNER, M. D., LL. D., F. R. M. S.

SURGEON-IN-CHIEF OF AUGUSTANA HOSPITAL AND ST. MARY'S HOSPITAL; PROFESSOR OF CLINICAL SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF ILLINOIS, CHICAGO.

THE tendency toward efficiency in institutions established for humanitarian purposes is most prominent at the present time. This has become especially apparent on all sides during the past few years in the hospital movement in this country. Men of excellent training, unusual ability, clear judgment, and force of character are giving an enormous amount of attention systematically to this work, and many very able men give all of their attention to it. In this manner it is quite naturally to be expected that the present generation will have the opportunity of observing the same phenomenal advancement in this field that has characterized the development of personal business enterprises in the past generation, a development the like of which the world has never before seen.

My attention has been called to a most interesting report of the meeting of the American Medical Association of the year 1873, which was compiled from replies to inquiries by the United States Bureau of Education, and which will serve as an illustration of the progress in the development of hospitals in this country. According to this report, there existed in this country forty years ago 149 hospitals, with 35,453 beds. Of these, 51, with 16,553 beds, were used for the care of insane patients; 43, with 12,322 beds, were used for the treatment of patients under the care of municipalities; and only 51, with 5,453 beds, for the care of patients who were not strictly public charges. Of the last class, 40 were church hospitals, with 4,923 beds, and 15 private hospitals, with 1,530 beds, and only one hospital, with 125 beds, was conducted by a corporation.

According to these statistics, 57 of these hospitals, with 19,044 beds, had been founded before 1853, or twenty years prior to the date on which these statistics were taken, which is exactly one-half of the time which has elapsed since these statistics were published. Of these 57 hospitals, with 19,044 beds, there were in use for the care of the insane, 25, with 8,919 beds; for the care of patients the charges of municipalities, 16, with 8,166 beds; and only 14, with 1,959 beds, were in use for patients who were not public charges. Of these there were 8 church hospitals, with 1,480 beds, and 6 private hospitals, with 479 beds. The difference in the twenty years is very great, the number of hospitals having nearly trebled and the capacity of all of the hospitals having nearly doubled. The relative proportion of increase of hospitals for the insane and their capacity maintained the same proportion that the general increase shows, but there was an increase of not quite 40 percent in the number of beds provided by municipalities for the care of the poor in general hospitals, while the number of beds provided by church hospitals and private hospitals had more than trebled during this period of twenty years. The number of hospital beds which were provided outside of municipal support was, however, still very small, and it must be remembered that almost all of these beds were occupied by the poor, who did not contribute much directly toward the support of these institutions.

Fig. 1. Philippe Pinel in the Salpetrière, Paris, 1793.

OLD AND NEW WAY OF CARING FOR THE INSANE.

Solitary Confinement and Idleness Have Given Way to Occupation and Companionship—Shackles and Prison Bars Are Banished.

Who shall say whether recent medical changes in the care and treatment of the insane, defectives, cripples, and the otherwise helpless are due in greater degree to modern humanitarianism, or to a better knowledge of the cause, course, and cure of disease? In any event, methods that were permissible only a few years ago are no longer tolerated.

It is said that insanity and correlated conditions are on the increase by giant strides, and some radical experts and statisticians have gone so far as to say that all mankind is going mad.

A short time ago it was ascertained that syphilis in young men who applied for enlistment in the army was greatly on the increase; a fuller inquiry, however, revealed the further fact that this increase dated from the initiation of the Wassermann and Noguchi tests, and that there were not more cases, but that a better diagnosis was made, and that cases which had eluded admission medical officers in the past were now diagnosed. Who shall say that the case is not the same with insanity, and that persons who were formerly merely "queer," or who were "conjured" or "bewitched," were not insane?

Fig. 2. Insane department in a county almshouse.

The evolution in the care of these helpless people must be a most interesting study to hospital workers and thinkers. The National Committee for Mental Hygiene has led the way in these studies, and has published some excellent illustrations on the "before-and-after" principle. We are reproducing some of these illustrations.

The first illustration shows the court yard of a "madhouse," the celebrated "Salpetrière" of Paris, in 1793, dur-

Fig. 4. Occupation and companionship at the Manhattan State Hospital.

ing a visit by Philippe Pinel, one of the first physicians to deserve the appellation of "friend of the insane."

Fig. 2 illustrates a day room in the negro quarters of the insane section of a county almshouse.

Fig. 3 illustrates the old method of treatment of the insane, "Silence and the solitary." And it was expected to restore this woman's mind in this way. No words could add to the pathos, not to say horrors, of these three pictures.

Figs. 4 and 5 are the modern way. These pictures need no further comment, except that it might be wished that the humanitarianism indicated, and the sound scientific principles involved in this treatment of the insane were not too frequently marred by brutality on the part of

Fig. 5. Day room in a modern state hospital.

The
MODERN HOSPITAL

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SUBSCRIPTION.

Under domestic postage, $3.00; foreign postage, $3.50 (14 Shillings). Single copies, 25 cents.

Domestic rates include United States, Cuba, Mexico, Porto Rico, Canal Zone, Hawaii, and Philippines.

Contributors, subscribers, and readers will find important information on advertising page 26.

Salutatory.

There are in the United States 6,665 institutions of record for the care of the sick, with a total capacity of more than 600,000 beds. By a modest estimate, these huge figures represent a money investment in land, buildings, and equipment of not less than $1,500,000,000, and an annual outlay for maintenance approaching $250,000,000.

On the human side, there are more than 100,000 trustees of hospitals, and more than 65,000 physicians on hospital medical staffs. About 10,000,000 men and women contribute annually to hospital funds, and approximately 9,000,000 men, women, and children are patients in the hospitals in the course of each year.

The hospital, in its broader sense and in its many aspects, has already become a powerful influence on society, if indeed it is not now the chief factor in a process of remolding and remaking the modern social fabric; its benign influence must be exerted in the future to divert the attention of the people away from the sordid pursuit of personal gain and selfish pleasure, and into an atmosphere pervaded by higher motives and more altruistic ambitions. But as yet there has been no welding together of the forces and influences that, even working separately and oftentimes in diverse directions, have such magnificent results. What may, then, be expected if all these agencies can be correlated and harmonized, and made to progress in one direction and toward a common beneficent goal?

There is so much to be done. By common consent, based upon the needs of the time, it is decreed that there shall be a bed in a good hospital for every sick and hurt man, woman, and child, and that every resource of medical skill, seconded by the highest order of trained nursing, and aided by all the arts and sciences, shall be at the service of rich and poor for the cure of disease. But it is no longer enough that those who can shall merely help to cure disease; the time is come when the prevention of disease looms larger than the cure, and in this field the hospital must show the way, again by the aid of the sciences and the arts, directed along the lines of hygiene, sanitation, pure living, and right thinking.

Even here the hospital finds no pause. Men were not born free and equal; the scales of justice have not weighed for all alike; the gentle dews of heaven have not rained down upon the just and the unjust in even portions; and so it becomes the task of today and the duty of the hospital, again in its larger sense, to help overcome the irregularities of birthright, to even the balances that have weighed so badly, and to bring to the lowly and the oppressed the beneficences of Faith, Hope, and Charity.

The social service of today is no charity, but a meager and halting attempt to mete out a common justice, to right the wrongs which are the accumulated transgressions of all the ages. Social service is a new human melting pot, wherein the weak and the poor and the unfortunate are blended in the warm fires of a common brotherhood with the rich, the strong, and the self-reliant; and the process must bring forth a new humanity, a new moral code, a new religion. These are the appointed works of the hospital of the future, and it was with some such thoughts as these that a few hospital administrators have banded themselves together to give hospital workers everywhere a bond of union, an agent for the collection and dissemination of experience and knowledge concerning their common service to humanity.

THE MODERN HOSPITAL is offered by the men who compose its editorial staff as this agent. They make no pretense of leadership; it is only their hope that the hospital world may find in the new agent a vehicle of expression that will bring into wider usefulness the experience and the learning of each individual, to the end that these may become the common harvest of all.

In the splendid work of bringing to fruition the

HINTS FOR HOSPITAL SUPERINTENDENTS.

Buy high-priced rubber goods. There is nothing else in the hospital so expensive as cheap rubber.

Don't believe everything you hear in the hospital, but hear everything you can. Knowledge is power, but don't encourage "snitching." Heaven defend us from tale bearers. They often tell us lies that we cannot "catch them at," they generally prejudice us against worthy employees, and they always make us unhappy.

Many rooms in the hospital will look warmer and more inviting and attractive if they have rugs on the floor. Extremely pretty, figured rag rugs are made nowadays that are inexpensive and wear forever. They are washable and can be sterilized. It is a great comfort to have a lot of them about.

In nearly every hospital there is a scarcity of flower pots. These can be bought in varying sizes for an average of about 50 cents apiece. They are fiber, come in green and terra-cotta colors, and can be had of the woodenware houses. They are very light, are entirely impervious, and will last for years.

The walls in hospital rooms look bare and unattractive at best, and sick people get very tired gazing at blank walls, no matter how soft a color they may have. Some exceptionally pretty effects can be had with cheap prints pasted to the wall, given a paint border and varnished over. These are especially attractive in the maternity department and for children.

Make your heads of departments friendly. Have plenty of conferences with them. Hear what they have to say about their work. Make them give you advice, and take it a good many times. The very fact that they give you advice shows that they are thinking about their work, and the fact of your taking their advice shows that you appreciate them, and you will get a better service all around.

Encourage visiting friends of the hospital to take an interest in things. Show them the things in which you think they would be interested. Tell them little stories about incidents in the institution. Awaken their lively interest in the hospital and its work. A little story about something that a little child patient did, or said, will travel further and often do more good than a volume of sermons or a discourse on finances.

Some of the largest donations ever given to a hospital come from grateful patients, and a sick pauper of today may be a millionaire tomorrow—or in ten years. A man walked up to a superintendent not long ago and handed him a check for $1,000, saying: "This is interest and principal that has been running for thirty years. This hospital was good to me when I had no money. Now I can pay. I was a boy then. Now my daughter is upstairs. She has a new baby, and I am a grandfather. I give you this money, and hope it brings me good luck and does you some good, too."

Try to persuade your doctors to attend such little ward ceremonies as high rectal irrigations, stomach washings, and test breakfasts. Try to get them to take personal charge of intern's work, like venesection, serum and antitoxin injections, subcutaneous and intravenous irrigations. Sometimes these things fail to act because they are not properly done, and a doctor can often suggest improvements; besides, doctors are generally under the impression it takes no time or labor to do these things, and they call for them when it is unnecessary, which they wouldn't do if they were brought in personal contact with the work themselves.

Hinged screens on the doors of private rooms will be greatly appreciated by convalescent patients. The carpenter can make them out of 1x2 dressed stuff, and the painter can stain them to conform to the woodwork. They are made with one large panel at the bottom and two small ones above. Usually they are made to come within about a foot of the floor at the bottom, and extend a little more than head high at the top. They serve to screen the patient from prying eyes of passersby, and yet he gets the benefit of the busy life on the corridor. He hears action and talk, and likes it. The door can be closed when he wants to be quiet.

Appoint somebody in the hospital to have charge of apparatus, tools, and appliances of all sorts, and to keep them in order. What is everybody's business is nobody's business, and don't expect the person that you charge with this duty to be popular in the hospital. Only a person with a continual grouch can be successful as the custodian of apparatus, because everybody wants to borrow, everybody breaks things, and nobody wants to be held accountable.

When you find a worker in the hospital doing his job well, even if he is only a floor scrubber, show him that you appreciate his service. You needn't raise his salary every time, but a kind word and a little encouragement will do just about as much good and cost only a little effort. There are some hospital administrators who are as begrudging of a word of appreciation as they are of a raise in salary. They could always afford the one, while they might not be able to give the other.

Don't ask nurses to carry each individual tray from the serving room to the patient. That is a waste of energy. Dr. Gilman Thompson, of New York, put a pedometer on a nurse not long ago who had twenty patients to feed, and she walked seven and a half miles feeding these twenty people three meals. Then he put in a food truck and saved five miles a day for the nurse. It takes a nurse about two hours to walk five miles and another hour to handle the trays, so that the food truck saved the nurse, and therefore the hospital, about three hours a day on every twenty patients.

An active, virile women's board is about the best asset that any hospital can have. Women have a great deal of sympathy for the sick, and nowadays, it seems, they have a great deal of leisure. You will be doing them an excellent service if you can find work for them, and they will be grateful. Women talk a lot, too, and, if they are made to feel that their service is appreciated by the hospital people, they will keep the hospital in the good graces of the public. Women are also great beggars for charity, and they will fill your larders and your linen closets. Therefore, get a good board, with plenty of members, and a good, active president, and keep them so busy rustling on the outside for the hospital that they won't have time to meddle with your business inside.

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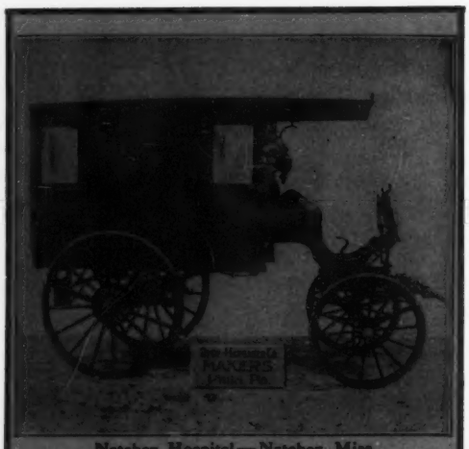

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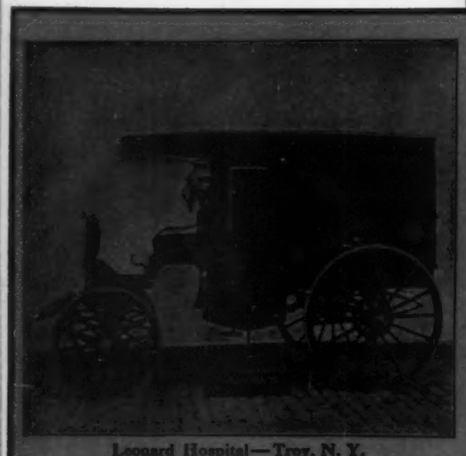

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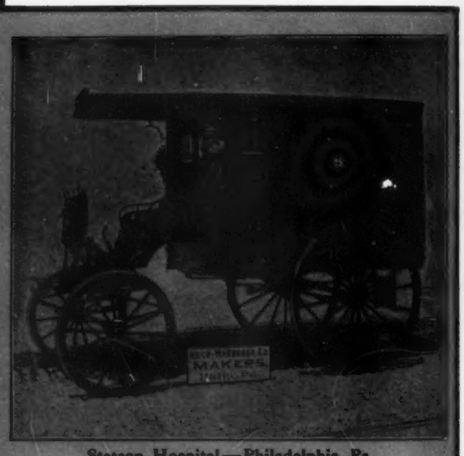

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ulated it into expression. The weak little *International Hospital Record,* later absorbed by The Modern Hospital, was physically unfit to serve the needs of a vast untilled field.

Nearly 7000 hospitals—think of it, more than there are today—stood unconsciously waiting for some man Moses to lead them out of a wilderness of individualism and isolation.

At that moment there converged the paths of Moses twain: the now inspired and impatient Doctor Ball, who having traveled the country over for hospital information knew the true and insistent need, and Dr. John A. Hornsby, distinguished superintendent of Michael Reese Hospital, a man with newspaper experience. There they were at last, a hospital publisher and his editor. In relief at having found each other, they plunged into their task and in the ensuing months worked out the details of this venture in journalism.

As a preliminary step it was decided that Doctor Hornsby (with Richard E. Schmidt collaborating) should write his book on hospitals. This was brought out by W. B. Saunders and Company in March 1913.

A second bit of ground work was the enlistment of the interest of Dr. George H. Simmons, directing genius of the American Medical Association, in having the A.M.A. authorize a section on hospitals, with the idea of educating the physicians in regard to the changing status of hospitalization. Such a section was formed and held the first of four programs in 1912. Doctor Hornsby's personalized news report of the 1913 section program will be found on page 178 of this issue.

1913-1918

In September 1913 came *Der Tag.* From the presses of a humid St. Louis printing house came tumbling a full-grown 144 page magazine. Its golden yellow cover bore the title "The Modern Hospital," a name chosen as a stingless spur to all who, in capacity large or small, might work on it or read it for generations without end.

That first issue—a sampling of whose contents can be reproduced this month, not with apology but with pride—was sent broadcast to 8000 hospitals here and abroad.

The reception was friendly but not overwhelming. The director of a prominent hospital voiced a belief shared by many others:

> Dear Doctors:
>
> Your first number is excellent, but after a few issues you will exhaust all possible topics in hospital architecture, organization, equipment and administration, and what then?

Many readers complimented the cover design as well as the high quality of the contents. This pleased its designer, Walter Dorwin Teague, who has since become internationally famed in industrial design. Mr.

Teague's concept, in the original cover, was the golden circle of charity embracing a typical hospital exterior, a design which he recently modernized.

Inside charity's golden circle on the first issue was an architect's sketch of the new Peter Bent Brigham Hospital, Boston, a building described within the magazine's covers. History this month repeats itself for in a silver circle appears a photograph of this building, while inside, Doctor Howland gives a critical estimate of its planning and facilities.

The original board of editors was distinguished: Dr. Henry Hurd and Dr. Winford H. Smith of Baltimore; Dr. Frederic A. Washburn of Boston; Dr. James G. Mumford of Clifton Springs, N. Y.; Dr. W. L. Babcock of Detroit; Dr. S. S. Goldwater of New York, and Doctor Hornsby. Their assistance was direct and devoted.

Doctor Goldwater, the magazine's "godfather," contributed an article to the first issue; now from a position of eminence he discusses the hospital of the future for this twenty-fifth anniversary number. Dr. Adolf Meyer today brings down to date the subject he discussed in the second issue of the new magazine.

It was in that second issue that The Modern Hospital made a bold and startling proposal: inspection and standardization of hospitals.

Editor Hornsby wrote an article and an editorial on the subject, the first of a strongly worded series. The very next month the newly organized American College of Surgeons held its first convocation.

Four years later (December 1917) The Modern Hopital was to announce:

> The most important meeting for the hospitals of this country that has ever been held occurred in Chicago on Friday and Saturday, October 19 and 20, unfortunately, too late for a full account to be published in our November number. The hospitals of the United States are to be standardized. . . . It looks very much now as though we were on the threshold of some very radical progress.

What else had happened during the period that the young hospital publication, its first slim subscription list now grown robust, had been hammering for standardization?

Much! But all paled to insignificance beside that world-shaking crisis, the War.

The hospital magazine had done a fair job of reporting on the base hospitals in Europe and on the new marvels of surgery and equipment that were being developed. Then came that black April, when our own country flung itself into Europe's furore. In Washington all was turmoil. Hospital equipment, surgical equipment, hospital supplies, surgical supplies, doctors, nurses, technicians were needed immediately and in volume hard to imagine.

Doctors Hornsby and Ball were everywhere, for in this time of stress the Council of National Defense and officials of Army and Navy turned to the one best source of hospital information, The Modern Hospital.

Editor and publisher conferred with officials, rushed to manufac-

turers, secretly dickered for buildings for official use and turned out a mass of information for the government that surprised themselves in its completeness.

"Who makes this?" "Where can these be found?" "Get the Navy a cheap lease on a warehouse." "Give us a report on —— College. We are told the building could be adapted for hospital use." "What about the —— plant? They can't use it now and it would make a good place for medical stores."

Out of this chasing and digging for facts came the idea for a new publication, The Hospital Yearbook, which since 1919 has been the standard reference volume on hospital equipment and supplies.

While all this unofficial and undercover work was being done for Uncle Sam, the magazine had to come out just the same. Actually it did not come out just the same; it came out even better.

Take a look at the War Number of August 1917. There's history for you, history that has never been put into book form: medical, surgical, nursing, ambulance service and hospital history.

An editor must make plans for a given issue well in advance. Doctor Hornsby had copy in type for a special number on Eye Clinics. All that was whisked aside as he and Doctor Ball plunged into assembling a collection of "useful, timely and exclusive information" on hospitals in the war.

Food stringency and regulations inspired the article "Institutional Economics for War Time." At 66th and Avenue A, New York, the Rockefeller Institute had set up a war demonstration hospital where the new Carrel-Dakin method of treating infected wounds could be practiced. This was described. Conversion of yachts into ambulance boats, portable hospitals for the front, scarcity of surgical instruments and supplies, the whole panorama of preparation was featured.

Suddenly the war ended. Demobilization began. The Modern Hospital hurriedly set up a free placement bureau and for two years aided superintendents, nurses, dietitians and hospital war workers of all sorts in getting jobs. The magazine had recruited thousands for war service; it returned thousands to peacetime pursuits.

1918-1923

To be nearer the thick of things during the War, the magazine had moved its publication offices to Chicago. After a brief stay in a Loop building, the company bought an old mansion at 22 East Ontario Street on the Near North Side. The house had been a distinguished center of society for a generation and two or three bits of Victorian furnishings had been left behind by the owner. These gave an air of formality to the comfortable offices.

A National Hospital Center

The red brick and white stone mansion became at that time a national hospital center, housing on its upper floors the expanding staff of the magazine; in its drawing room, the first permanent home of the American Hospital Association; in its library, appropriately, the Hospital Library and Service Bureau, and in another corner, the National Catholic Welfare Council.

About this time Doctor Hornsby, after having been attached to the staff of the Secretary of War, permanently left the magazine to take up new activities and Joseph J. Weber, assistant director of the Boston Dispensary, succeeded to the post of editor, a position he held until 1925 when he became superintendent of Vassar Brothers Hospital.

The magazine had always stood for the best in hospital design and construction and no single issue had appeared without at least one architectural description. Certain architects were beginning to specialize in hospital construction and their services were available to large urban hospitals. The small town and rural institution, however, rarely had the advantage of expert planning.

To stimulate sounder and more specialized planning and to improve the appearance of this type of public building, The Modern Hospital in 1922-23 conducted a competition for small hospital designs.

Cash awards, announced in May 1923, went to Butler and Rodman of New York, John J. Roth of Los Angeles and Ernest C. Hoedtke of Cambridge, Mass. Fifteen years after this contest the magazine is still receiving requests for these elevations and floor plans.

Another appreciated editorial service of this period was a survey of salaries of hospital superintendents, superintendents of nurses, dietitians and other personnel. Many administrators and department heads used the findings as a hint to trustees that a salary boost was in order.

1923-1928

During the Coolidge era, along with all business, the publication knew prosperity. Eager to pass on the profits to its readers, the magazine made a series of timely and time-consuming studies on hospital operating costs and earnings, the professional life span of the graduate nurse, the stability of the superintendent's job and similar questions of specific appeal to administrators.

Special sections or supplements appeared, devoted to a single large project, such as the several medical centers being established in East, West and Middle West. John A. McNamara had succeeded Mr.

Weber in the executive editor's chair and sometimes he, or, more often, the assistant editor, Janet Peterkin, went into the field to study these projects and to report them in detail. For the administrator too busy to leave his own locality, these articles were a combined Cook's tour and Hospital Baedeker.

Since a magazine's stock in trade consists largely of ideas, a successful publication must present concepts that are in advance of their time, although not too far in advance, else they will fall upon unplowed ground.

The MODERN HOSPITAL had been reasonably successful in anticipating future trends and in preparing its public for them. As an example, there was the time back near its beginnings when those responsible for the magazine urged on Father Moulinier the need for a Catholic Hospital Association and later helped to prepare that association's first convention program in 1915.

Also, as an indirect result of the magazine's attention to hospital food service, Lulu G. Graves of its editorial staff initiated the organization meeting of the American Dietetic Association in 1917.

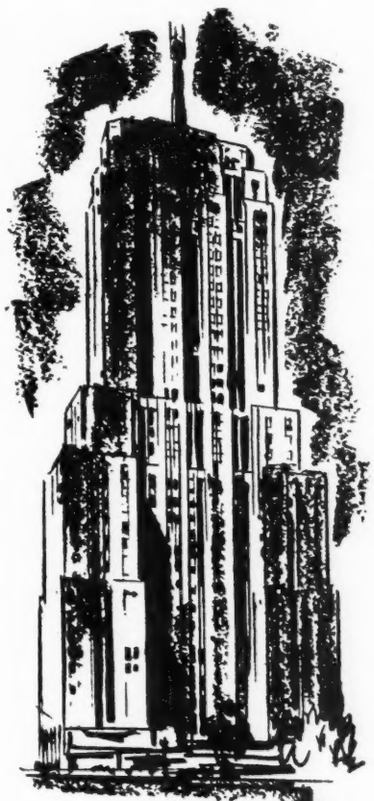
During the period under consideration the magazine saw the need for courses or institutes in hospital administration such as are now being conducted in certain universities under the aegis of the American College of Hospital Administrators. From authoritative sources it developed a reading course in hospital administration consisting of 24 lessons published consecutively beginning in January 1927. That reading course was the nearest that many successful hospital executives of the present day have come to academic or graduate study in administration.

Late in this period the publication again prepared to move its offices, this time to Chicago's newest skyscraper, the Palmolive Building. It became one of this handsome building's first tenants, and its suite of offices on the ninth floor immediately became a between-trains stopover place for hospital people from all over the continent and, indeed, the world.

To this building, too, were brought the extensive files of literature on equipment and supplies that are the lifeblood of The HOSPITAL YEARBOOK.

1933-1938

The depression dawned considerably later in the hospital field than in Wall Street. For hospital folk and for The MODERN HOSPITAL this financial cataclysm meant that both must labor longer and to closer purpose for their Cause.



PALMOLIVE BUILDING

The magazine always had been a proud piece and to keep up morale it did what any girl in her early twenties might be expected to do: it went shopping for a complete new costume styled to the latest mode. Its golden cover went handsomely modern; its typography was redesigned and its articles, to save the time of ever-busy hospital readers, took a reducing course and emerged with fewer curves and no excess blubber. Restyled, and with chin aloft, the publication prepared to pursue its next plan of action, depression, recession or come what may.

There was the future to consider. Youth must be enlisted to assure provision for carrying the work forward into long years ahead. As business and editorial associate of Doctor Ball there was introduced to the hospital field a young man fresh from other journalistic duties, Raymond P. Sloan, to fill the post of vice president and associate editor.

It was evident that the hospital world was changing. In 1932 the Committee on the Costs of Medical Care wound up its studies and the hospital group was alert and flexible enough to profit from the findings. To keep in advance of the trend, the committee's young executive secretary, Alden B. Mills, was invited to become the new managing editor of The MODERN HOSPITAL, with that kindly philosopher, Dr. Joseph C. Doane, former chairman of the editorial board, as editor.

With this "accent on youth" in dress and in staff, the magazine began to "strut its stuff." Mr. Mills made an inclusive study of rural hospitals that pointed the need for more beds in many areas. He became the magazine's standard bearer for hospital care insurance, one of the field's really big advances of the '30's.

Mr. Sloan made little journeys to small hospitals, often to find superintendents isolated and lonely and in need of an assistance that the magazine had not previously been able to supply. This work he made his province. Then, one day, he became a hospital trustee. Straightway he had a vision of the rich field for future effort in trustee education that lay before administrators and his hospital publication.

Liability and fire insurance, types of distinguished service that may be rendered by hospitals, the new necessity for public relations and for better personnel administration, these are other banners the magazine has been flying during the last half-decade.

At the age of 25, a person has hardly found himself. With a magazine it must be different. The MODERN HOSPITAL, as we have seen, started life with a purpose. At the age of 25 its purpose, while fundamentally unaltered, has deepened, broadened, heightened until now, at the magazine's 301st issue, it has evolved into something of a spiritual crusade.

Actual operation, New York Hospital

Surgery's Problems

As They Affect the Hospital

THE present problem of surgery is the same as it was in the past and as it will be in the future, namely, to relieve the patient as quickly, as efficiently and as economically as possible. The subject cannot be disposed of by making that declaration, however. Consideration discloses many other problems, each worthy of contemplation.

Those concerned with the care of the sick, whether that care is clinical, social, administrative or what not, know that not a day passes without many of these problems coming up for solution, some of them problems which many years ago, or even only a few years ago, were not problems of surgery at all because they had not yet been thought of as essential in the scheme of things.

One or two examples will suffice to call these to attention and no literal magnification is needed to point out the increase in personnel, in number of details of technic and in cost, or, most important of all, the beneficial changes in the results as they apply to the surgical patient.

To Pasteur and Lister primarily, who in the 1870's presented their revolutionizing work, mankind owes an unpayable debt. The following letter from Lister to Pasteur dated from Edinburgh, Feb. 13, 1874, is relevant here:

"My dear Sir: Allow me to beg your acceptance of a pamphlet, which I send by the same post, containing an account of some investigations into the subject which you have done so much to elucidate, the

germ theory of fermentative changes. I flatter myself that you may read with some interest what I have written on the organism which you were the first to describe in your 'Mémoire sur la fermentation appelée lactique.'

"I do not know whether the records of British 'Surgery' ever meet your eye. If so, you will have seen from time to time notices of the antiseptic system of treatment, which I have been labouring for the last nine years to bring to perfection.

"Allow me to take this opportunity to tender you my most cordial thanks for having, by your brilliant researches, demonstrated to me the truth of the germ theory of putrefaction, and thus furnished me with the principle upon which alone the antiseptic system can be carried out.

"I need hardly add that it would afford me the highest gratification to show you how greatly surgery is indebted to you.

"Forgive the freedom with which a common love of science inspires me.

"Yours very sincerely,
"Joseph Lister."

The unavoidably cruel days of surgery before anesthesia seem far removed from those which followed Long's now famous administration of ether, on March 30, 1842, to remove a small tumor from the neck of one James Venable, and Morton's popularization of the use of ether. Only imagination is needed to appreciate the benefits of unconsciousness under the knife. The refinements of administration of anesthetic agents and their variety now make possible the fitting of the anesthesia to the patient, rather than the reverse. Complete relaxation not only is a boon to the patient but also has been a technical aid in exposure of the operative field.

There is no need to illustrate how comparatively brief but how important has been the development of those adjuncts so necessary to the performance of good surgery. It must be remarked, however, that as each adjunct has come in, it has not itself become static. Each has presented a field for research, each eventually has become complex in itself and, for its efficient application in operation, a surgical specialty has arisen. We may decry the amount of specialization but actually it has come about through demand and development.

The definition of a specialist as one who "knows more and more about less and less" is good and true. Its truth makes essential that the specialist, to do efficient work, must have some association with others who, taken altogether, represent the whole of which the specialty is only a part. Breadth of outlook is necessary to keep the whole in balance.

The changes that have taken place from a mechanical standpoint, as in instruments, surgical lights, operating tables—one could go on indefinitely—have added to the responsibility of the surgeon and of the hospital. Should this be changed because it is outmoded? Should that be bought? Does the expense involved justify itself to the patient?

The problem of education, not only of the future surgeon but also of the surgical nurse, falls in the lap of the surgeon and the hospital. These are obligations which cannot be shunned and which, in fact, should be welcomed for the service they render. Hospitals that undertake this additional work must be equipped to do it and, regardless of the point of view, whether it is that of one on "the inside looking out" or of one on "the outside looking in," the expense is burdensome.

Refinements in Education

The past few years have seen marked refinements in educational policies. Not only have the fundamentals of physical ills, their causes and treatment been better presented but also, and often equally important, the mental status of the sick person, whether a charity or a private patient, has been much more efficiently understood and humored. Better beds, better pillows, better bedpans—detail after detail has been studied and facilities have been supplied in abundance by the hospital.

Elimination, or at least minimizing, of noise by the installation of new composite materials on ceilings, walls and floors, has played its part in soothing otherwise irritable and difficult patients. Colors, music, hospital libraries and occupational therapy also have parts to play in the drama.

Social and Economic Upheavals

In many countries abroad, social and economic upheavals have distressingly affected medicine and its adjunct services. Fortunately, however, we in this country, although not entirely unscathed, have kept a good balance. It must be remembered that conditions as they exist elsewhere are not the fault of medicine but that medicine has had to adjust itself as best it could in each case to the political, social and economic situation in which it found itself, detrimental as that position may have been to the healthful progress of medicine. One may rest assured, too, that with improvement in general conditions in each instance the relationship between doctor and patient, and the advancement in the science and art of medicine, will be in the vanguard.

In some other countries, where conditions of living are entirely different from those in the United States, problems of health have been solved by socialization of medicine but to assume that we should imitate those solutions is ridiculous. That we will change to fit whatever trends this country may take, after time has proved that the change is to be a lasting one, goes without saying; it is inevitable, but may we be delivered from any headlong, sudden shift in policy that would mechanize the relationship between the sick and those concerned with their care.

We can be justly proud of achievements that have been made in the orderly cooperation of all those groups of people whose first thought has been, is and will continue to be the welfare of the patient.

Maternity Care Is Bound to

A. J. SKEEL, M.D.

THE practice of obstetrics has traveled a long road in America, from the days of the pioneer mother who in her isolated cabin often had to be content with the assistance of a neighbor, to the period of the modern metropolitan hospital and the skillful obstetric specialist.

Following the pioneeer days, as populations increased there developed the custom of delivery in the home, with either a doctor or midwife in attendance. When difficulties arose, the midwife called the doctor or the doctor summoned a colleague to his assistance, and the armamentarium furnished by domestic supplies and the meager contents of the doctor's satchel had to be relied upon for the gravest emergencies and the most extensive operative procedures.

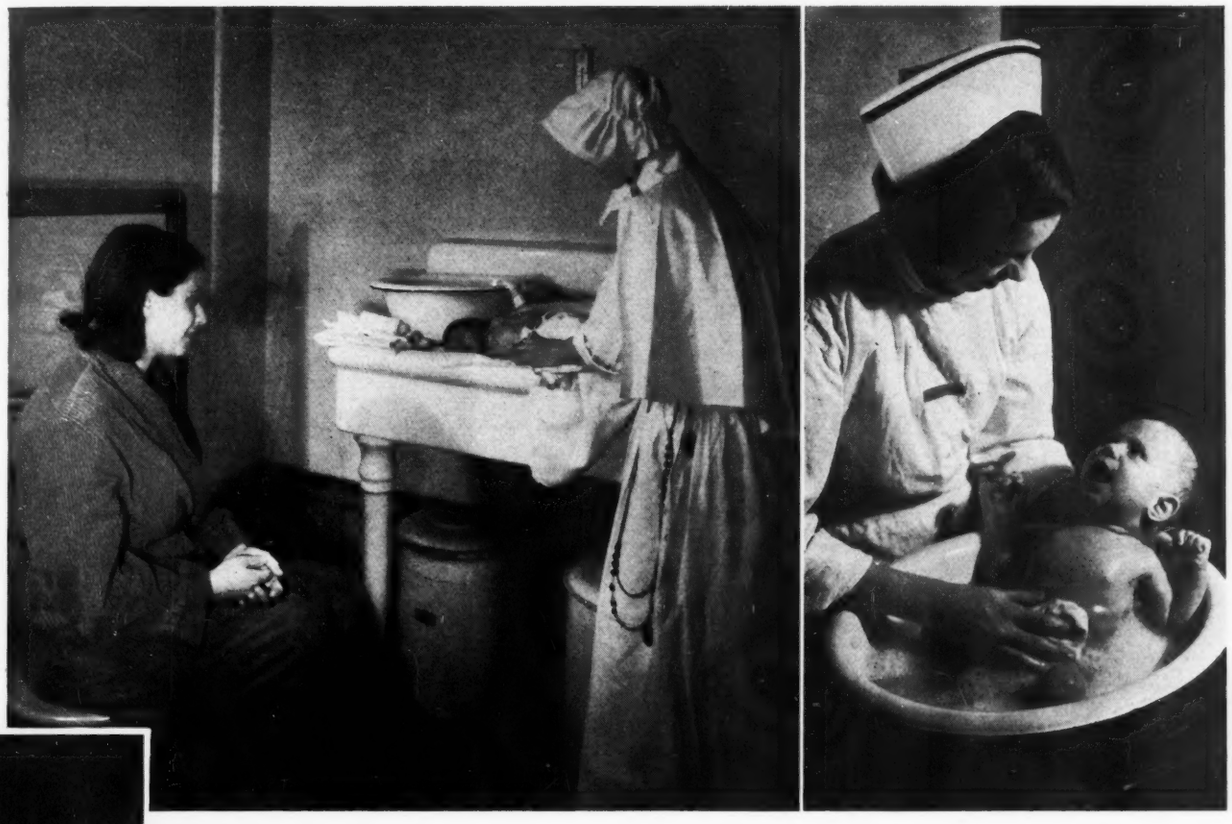
In small urban communities hospitals sprang up, usually because of a demand for better facilities for surgery, which was expanding rapidly as a result of the discovery of anesthesia and the knowledge of the bacteriologic causes of septic infection. Doctors began to utilize the hospital for serious medical cases, and the vast multiplication of hospital facilities that characterizes the present era in medicine started.

Soon the family doctor, when confronted by a grave obstetric crisis, began to think of the hospital. He took his patient to the hospital where anesthetics, asepsis and surgical skill were all to be found. Patients and doctors began to realize the superior facilities of the hospital for comfort, nursing care and ready help in emergencies, and there arose the gradually increasing tide of institutional obstetric care which today is reaching its zenith in metropolitan communities with from 70 to 90 per cent of the deliveries hospitalized. The most noteworthy factor, from the obstetric standpoint, in this development was its casual character. The hospital was planned for surgery, and later for medicine, but the acceptance of an obstetric patient was merely an incident. The building was not constructed with obstetrics in mind; the staff was not organized with any such thought, and if anyone considered the matter at all it was felt that the general surgery and the all-round surgeon provided the acme of obstetrical service.

We had little knowledge of the habits of the ubiquitous streptococcus in those days and the rubber glove was unknown. Everyone supposed that aseptic and antiseptic methods developed in surgery represented ideal conditions for delivery and ma-

Be Different

What of the future? This author recommends small nursing homes for obstetrics for small towns, the taking of hospital facilities to the homes in scantily populated areas and control by isolation in large city hospitals.



Presenting five cesarian section babies of 1915, all born within one week at a large hospital.

ternity care. Surely the woman who had a version or a forceps delivery done in the surgery, which was safe for laparotomy, and who was placed in a nice clean room with her baby and was cared for by good nurses could ask for nothing better.

It all sounded logical but we were soon to be disillusioned. The clean surgical case could be cared for side by side with the infected one, because the surgical wound was closed and sealed by occlusive dressings against external contamination. The freshly delivered woman, when placed under the same conditions, developed childbed fever and died. Then, too, the methods of local antisepsis used for surgery were not adequate for the accoucheur. The bruised and lacerated tissues of the perineum and the freshly opened uteroplacental sinuses proved potent culture fields for infection.

With the advent of the rubber glove we thought that most of this danger was excluded but again we found that the streptococcus sometimes eluded our best efforts.

In the nursery, too, care of the newborn in large groups accentuated the risks of ophthalmia neonatorum, of cord infections, of such contagious conditions as impetigo and other transmissible diseases.

Specialized maternities, which limited their work to obstetrics, were not exposed to the risk of infection from septic cases on the surgical or medical floors, but they, too, developed epidemics of sepsis, which sometimes required closing and completely renovating the unit before the infection could be eliminated.

Early teaching of obstetrics in the United States was entirely inadequate. With this handicap and with the failure of hospitalization to eradicate sepsis, plus the rapid spread of an operative furore, forceps, version and even cesarean section, all performed by the family doctor or

his surgeon, American obstetrics became the subject of intensive criticism. A return to the primitive method of home delivery by the midwife was advocated by some authorities.

The hospital, however, presented so many manifest advantages in facilities for nursing care, adequate equipment, trained personnel, anesthesia and repair of delivery injuries that obstetricians began intensive studies of the problems that arose from mass housing.

When considering infectious conditions that endanger the obstetric division, they may advantageously be divided into two groups: those that threaten from without and those that arise from within. Isolation of "space," of "personnel" and of "armamentarium" effectively stops the former. It seems clear that we have done little to deal with the latter.

When a case of streptococcic infection occurs on the division or when a baby shows signs of impetigo, we hasten to isolate the patient. This is quite clearly "locking the barn door after the horse is stolen." Other mothers have already been exposed and other babies have already been contaminated by the time a diagnosis is made and the patient is isolated. We have been developing larger nurseries and larger maternity housing units, hoping that we will be fortunate should contagion come, knowing that if we are unfortunate and infection does spread many lives may be lost before the disease is eradicated.

Smaller Units in Large Hospitals

It seems obvious that we must develop a technic for smaller service units if the hospital is to give its patients adequate protection. Isolated service for mothers and babies, in units of 10, 12 or 15, or some multiple of these, as experience proves practical, must be adopted to make our protection complete. If, in a hospital working with small service units, with cross currents carefully eliminated, infection should arise, as it will sometime or other, the patient can be removed and the unit renovated without endangering anyone outside the small unit involved. The extra cost must be reckoned as insurance against catastrophe.

Any hospital executive who has had experience with a genuine epidemic of sepsis or of infantile diarrhea will undoubtedly testify that such insurance is good economy, even from the financial standpoint. The cost in lives of such a calamity is, of course, incalculable.

Future building of maternity hospitals, either for specialized obstetrics or the obstetrical division of a general hospital, should be planned for small unit service. With isolation to protect from external contamination and with the small unit plan to limit septic contacts by the rare case, arising sporadically, the hospital can provide patients greater safety than was possible before, either in the home or the hospital.

Type of Medical Service Needed

It has been urged repeatedly that in metropolitan areas all patients should be hospitalized, all hospitals standardized for isolation and all deliveries supervised by the obstetric director or chief. In Cleveland where this plan has had its best tryout, maternal mortalities have dropped from 7 per thousand to 3.4, with an obstetric mortality of 2.27 per thousand for the year 1937.

The danger of infectious conditions must be controlled by isolation and small unit service. The control of all other causes of death is the direct responsibility of the obstetric staff through case supervision. This is not possible until the authorities of the hospital appoint a chief and give him both power and responsibility to supervise both free and private patients.

The future of the large metropolitan hospital, then, seems fairly well established, as regards the necessity for: (1) isolation of a compact unit of space; (2) isolation of personnel; (3) isolation of all supplies and paraphernalia; (4) establishment of small service units, both mothers and babes to be in a single unit, and (5) organization of a staff with a chief who has supervisory power over the care of all patients and who is held responsible by the hospital for exercising such supervision. This requirement will inevitably carry with it the necessity for compensation to the director or chief who must assume this burdensome responsibility.

Space does not permit discussion of such matters as air conditioning, limitation of visitors and elimination of the doctor who sees contagious diseases at home and blithely proceeds to care for a confinement case.

The trend toward hospitalization seems to be limited to the large institution. Neither in large cities nor elsewhere does the number of women who go to the small hospital for delivery seem to be increasing, although the obstetric population of the large institutions is growing from 5 to 10 per cent annually.

Proper isolation seems to be a discouraging doctrine for the small hospital to accept, both from the financial standpoint and from that of practicability. No hospital that does not solve this problem should care for obstetric cases and, quite probably in the near future, none will be permitted to do so.

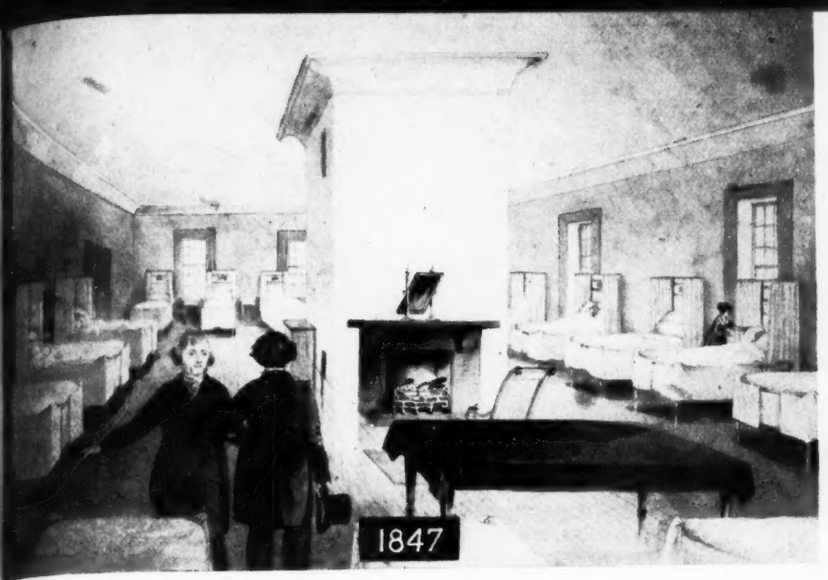
Another question for the small community hospital is that of expert supervision of patients. Since this supervision (unobtainable at home) is one of the outstanding advantages of hospitalization, it may be that the time is not yet ripe to urge women expecting normal deliveries to leave their homes and go to a hospital which neither protects them from institutional infection nor gives them the advantage of early obstetric consultation in abnormal cases.

Air Ambulances an Aid

Better transportation facilities, including air transportation, will make the large hospital increasingly accessible to wider areas of population. Possibly small nursing homes for obstetrics only can be provided for the villages and small towns, utilizing the airplane to bring the specialist when needed.

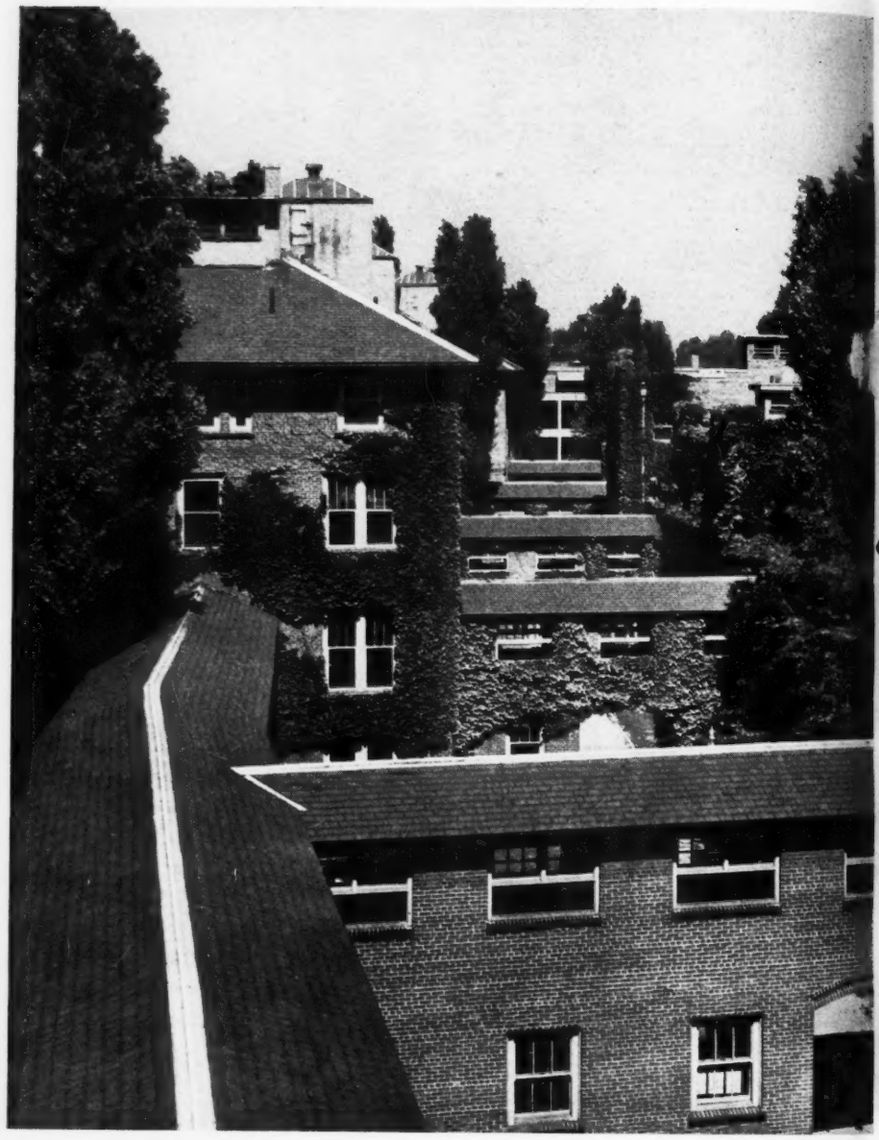
In still more scantily populated areas, instead of bringing the patient to the hospital, it may be advisable to take hospital facilities and the obstetrician to the patient. Subsidized either by the state (in its larger sense) or by some foundation, hospitals could be established that could act as medical centers for the activities of communities covering areas from 100 to 150 miles in diameter, or a radius of 75 miles from the hospital in any direction.

(Continued on page 206)



EVOLUTION OF THE WARD

Modern trends in hospital planning and construction are nowhere more apparent than in the ward. A century ago it often occupied an entire floor and had 50 or more beds; today the four or eight bed ward is commonplace. Just as its geographical limitations have shrunk with the years, so has time softened its bleak aspects, until now the ward provides facilities that could not have been purchased by the most affluent patient 25 years ago. Heating and ventilating were prime problems when the photograph of the men's ward at Pennsylvania Hospital, Philadelphia (top right), was taken for the Chicago World's Fair. An ingenious heating and ventilating device (seen above the pillars) was in use from the earliest days. A change notable today is the increase in privacy for ward patients.



The Brigham's First

By JOSEPH B.

TWENTY-FIVE years ago (Jan. 27, 1913), the Peter Bent Brigham Hospital, Boston, received its first patient. In September of that year appeared Vol. 1, No. 1 of The MODERN HOSPITAL, bearing on its front cover a sketch of this hospital's administration building and carrying inside an article by its first superintendent, Herbert B. Howard, M.D. This article gave the plans and description of the pavilion type of public ward building typical of the Peter Bent Brigham Hospital.

Now, in 1938, both the Peter Bent Brigham Hospital and The MODERN HOSPITAL are celebrating a quarter-century of public service. The time and the place seem appropriate, therefore, for an article reviewing the changes that have taken place in hospital planning and administration and in those aspects of medical science that particularly affect hospitals.

The Peter Bent Brigham Hospital when first completed was generally accepted as representing the latest thought in hospital planning for general medical and surgical adult patients. The hospital is built on a rectangular 8 acre lot and consists of 15 buildings of which three may be considered as one since the large teaching amphitheater, built in 1914, joins the surgical and medical buildings into one long structure.

The administration building with the main entrance to the hospital stands near one end of the lot with the wards and service buildings extending along the property in two parallel rows. The outdoor department and the nurses' home lie on the opposite side of the administration building.

In April 1913, Sir William Osler, then on a visit to this country, came to an informal opening of the Peter Bent Brigham Hospital. Speaking of the hospital plant he said in part:

"I have never seen wards that have pleased me so much. Indeed, for private patients, ward patients, everything so far as equipment is concerned is the last word, I think, in hospital development."

In our typical public ward building all patients can be wheeled out of doors to the shade of trees without the use of elevators and can be as easily returned to their wards when necessary. In summer, ward visits by the doctors are frequently made out of doors. In fact, after twenty-five years of experience with this pavilion ward unit system, I have yet to see a building that I think is better planned for the comfort of the patients and for the convenience of the nurses in easy observation of patients and in saving steps in carrying out their ward duties.

In 1913, the hospital seemed complete in nearly every respect. The laboratories seemed ample. The comparatively small space allotted to the x-ray department appeared adequate since that department's work had to do mainly with the diagnosing of fractures. It was located in the ground floor of the administration building near what was intended to be the emergency ward and not far from the outdoor department. At that time, who could have foreseen the

25 Years

HOWLAND, M.D.

during the entire period the number of patients (both in the hospital and in the outdoor department) who might need x-ray services remained practically the same.

A great impetus to the increased use of x-ray for therapy came in 1920 when Professors Duane and Coolidge perfected the 200,000 volt treatment apparatus. Now we find many hospitals equipped with units delivering 400,000 volts and a few using treatment machines capable of delivering 1,000,000 volts or more.

The Peter Bent Brigham Hospital planned, in addition to its clinical laboratories, what seemed ample space for original investigation. But in 1913 medical research was just beginning! The studies in blood chemistry of Van Slyke of the Rockefeller Institute and of Folin of our own staff and the Harvard Medical School, not to mention the researches of other eminent scientists, made it necessary for this type of work to be taken from the medical school laboratory and brought close to the patient for daily routine. It is now a common occurrence to find patients in beds or wheel chairs in the laboratories.

Four years after the opening of the hospital, we find the physician-in-chief telling of the need for trained chemists and more technicians. Today, notwithstanding the fact that we have given to the laboratories much space needed for other purposes, we find our facilities inadequate not only for the many workers who wish to carry on investigative work but even for the work in blood chemistry.

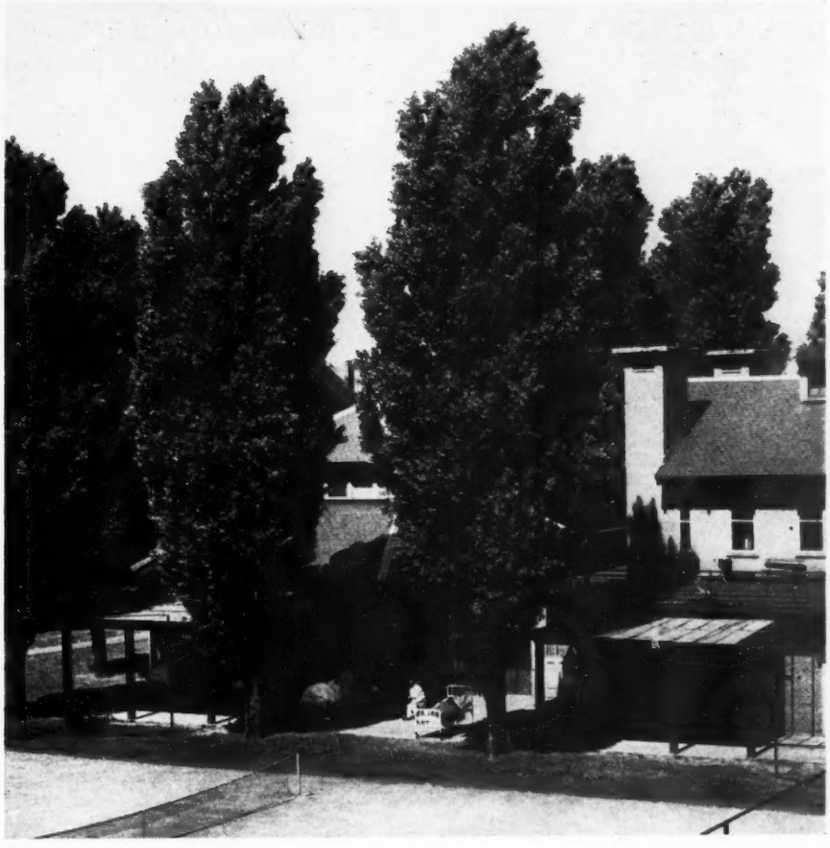
Application of basal metabolism determinations to clinical conditions was just being considered as our buildings rose. It could hardly be foreseen that in a short time there would be a large number of both in-patients and out-patients sent daily to the metabolism room for study.

Fortunately for us, the electrocardiograph had come into use by 1913 and we had one of the earliest installations. Very wisely, the buildings were so wired that cardiac records can be made on the machine in the laboratory while the patient remains in his bed on the ward or lies on the

present day efficiency of x-ray equipment; who could have guessed the growth of x-ray therapy?

Yet as early as 1915 the annual report of the hospital's surgeon-in-chief spoke of the rapid growth of the use of the x-ray and of the inadequacy of our quarters. During that year there were 5500 patient-visits to the x-ray department. These had increased by 1928 to 11,000 and by 1937 to 14,500. To realize the significance of these figures, it must be remembered that

Peter Bent Brigham, opened in 1913, was the last general hospital of considerable size to be built on the multiple pavilion plan.



examining table in the out-door department.

The hospital's opening antedated studies in allergy so that no adequate provision was made for manufacturing testing solutions and vaccines for the host of sufferers who now come to our hay-fever and asthma clinics.

The biochemists had not discovered vitamins. At least this word does not appear in the dictionary of 1913.

Our planners allotted no laboratory space for the manufacture of intravenous solutions since none was then used.

During the years when the Peter Bent Brigham Hospital was being planned, there was little tendency to take well-to-do and rich patients out of their own homes. Operating on the kitchen table was a common practice.

Provides for Private Patients

With the advent of new diagnostic and therapeutic procedures, the care of the patient grew beyond the facilities of his home. Then it was realized that no adequate provision had been made for the hospital care of those who wanted the best and could pay for it, the very people to whom the private charitable hospitals looked for support. There were so-called private hospitals but they were generally revamped dwelling houses, inadequate in design, often unsafe and not equipped to give their patients the benefits of the newer scientific discoveries.

Perhaps the realization of our need for a private ward came earlier than in most hospitals because of Dr. Harvey Cushing's rapidly growing fame as a neurosurgeon and the consequent influx of patients of all classes from all over the world. It was obviously impossible to do this type of surgery anywhere but in a hospital having special equipment and possessing personnel trained to assist at operations.

A special research ward had been planned originally but almost as soon as the hospital was opened this building had to be converted into a private ward of sorts, with its rather meager bed capacity divided for use between the heads of the surgical and medical services. In 1918, five years after the hospital opened, the superintendent recommended in his annual report that a new private ward be built "as a source of income and to fulfill the demands of the staff."

The hospital for people of moderate means is a matter of but yesterday. Now, however, hospital insurance plans are springing up all over the country whereby the small salaried individual may obtain semiprivate accommodations for a very small yearly premium. Already the need for additional provisions for this type of patient is imperative.

So far as I know, the Peter Bent Brigham Hospital was the first to have a full-time physician-in-chief and a full-time surgeon-in-chief. Except for professorial work at near-by Harvard Medical School, these chiefs of services planned to spend all their time in the hospital where suitable office suites were provided. This "Harvard plan" differed from the usual full-time arrangement later adopted elsewhere (known as the "Rockefeller plan") in that our plan permitted the maintenance of the desirable physician-patient relationship with the physician deriving part of his income from patient fees instead of having such fees accrue to the hospital and the physician receive a full-time salary from the institution. After twenty-five years of this Harvard plan, we have no desire to change.

Establishes Office Suites

By 1915, the chiefs of services were asking for offices and examining rooms for their immediate subordinates in order that these men, too, might better serve the hospital, their patients and themselves. In 1920, yet more offices were provided and later, this space was extended.

Also in 1915, the physician-in-chief requested an increase in the size of his resident staff in order to provide time for the study of special problems. Medical research had made great advances in the two years since the hospital opened. In fact, aside from research, a larger house staff was needed to do the many chemical tests routinely required.

Changes in nursing have kept step with those in medicine. In 1913, nursing was not definitely recognized as a profession. Within the past few years, such an authority as A. Lawrence Lowell has stated that nursing may now be considered a profession. Training school authorities have increasingly recognized their obligation to their students by providing larger and better prepared faculties and by outlining a course in which the educational requirements are more seriously considered than the nursing load of the hospital. Hours have been shortened, curriculums improved and more graduate nurses have been employed for floor duty to help with tasks which might not be considered as educational.

The consequence of these changes has been an increased need for additional quarters for housing nurses and increases in the amount of space for classrooms and laboratories.

Classes for Cases

From the opening of the hospital it was decided to keep the outdoor department open all day. This was made possible by placing the general medical and surgical clinics in charge of experienced house officers who had no other duties to perform. For help on difficult cases, these young men turned to members of the visiting staff. It was thought best to arrange that certain types of cases be seen in classes, but never until the individual patients had first been through one of the general clinics. Once a year, all patients attending these special classes are returned to the appropriate general clinic for check-up.

This plan worked well and has been continued until now the special classes include clinics for the following conditions: cardiac, dental, orthopedic, renal, asthma, gynecologic, luetic, otolaryngologic, blood, arthritic, diabetic, endocrine, varicose veins, tuberculosis, vascular disorders, tumors and gastro-intestinal diseases. These special clinics, as a rule, are directly under the supervision of men from the visiting staff, aided by the house staff.

One of the difficulties with outpatient clinics has always been the congestion that comes with admitting large numbers of patients within limited hours, without providing suitable numbers of physicians and space for their care. There is nothing more discouraging to a physician who desires to do good work than to find the clinic waiting room so crowded that slipshod work must be done.

In 1924, the out-door department adopted an appointment system. While not perfect, the system is still in use and is certainly preferable to our former method.

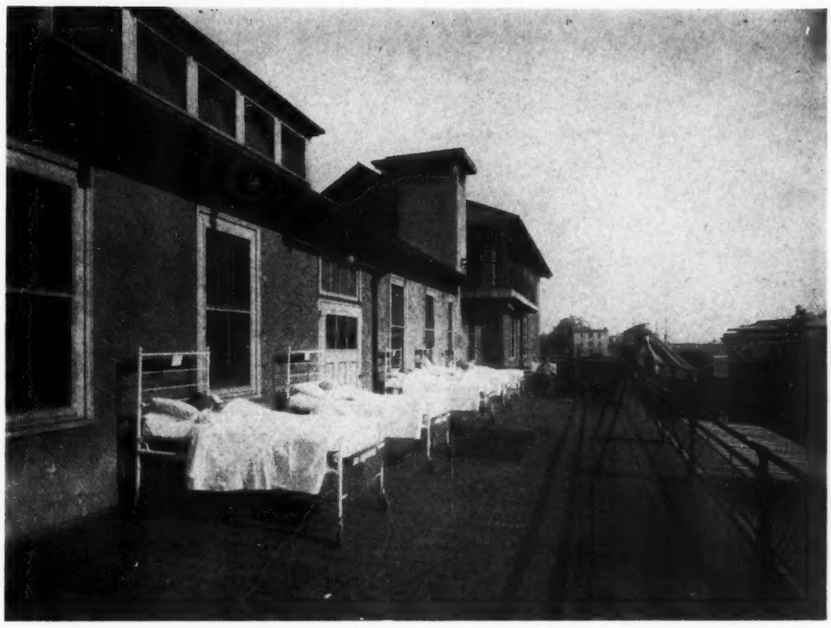
When the hospital was opened, space was left for mechanotherapy or Zander apparatus. This apparatus was never purchased, however, and as years went by, it became evident that the tendency was to rely less on mechanical apparatus and more on manipulations and simple exercises given by trained physiotherapists.

Hospitals of twenty-five years ago were not well coordinated with other health activities. During the World War, they managed with skeleton staffs and endeavored to make room for patriotic groups manufacturing and sterilizing surgical dressings. Many cared for returned soldiers and sailors, which meant new administrative detail and accounting to the government. Following the war, most hospitals had contracts with the Veterans' Bureau and later with the W.P.A. or P.W.A. and other similar groups, all of which added considerably to administrative detail.

With preventive medicine making progress, the hospital found itself in daily contact with more agencies than formerly. This has meant additional work and consequently more workers. Private and semiprivate wards are competitive units and, therefore, much thought must be given to endless detail in furnishings, equipment and management. New legislation proposed because of changing social and economic conditions requires a large amount of the administrator's time.

It is needless to enlarge on the administrative difficulties that the economic conditions of the past years have caused. Many believe that the policies of the private charitable institutions will have to be changed to meet the problems created by governmental trends.

Social service departments have increased greatly in size during the last twenty-five years. We now find their workers attached to most of the important clinics where they serve to interpret to patients the doctors' orders, follow up delinquents and untangle the social problems whose solutions are so important to the patient's health and welfare.



Patients may be wheeled out of doors without the use of elevators on to the monitor-roofed open ward, where they spend much time.

Within recent months, the program sponsored by Surgeon General Parran of the U. S. Public Health Service against the genito-infectious diseases places greater demands than ever on social service workers. In connection with this work, Peter Bent Brigham Hospital now has a full-time nurse social worker particularly trained for the epidemiologic investigation of syphilis and gonorrhea. This worker investigates alleged sources of infection and contacts and reduces to a minimum the number of those who cease their treatments prematurely.

Nowhere in the hospital has there been greater change in the last twenty-five years than in the dietary department. In 1913, one dietitian was sufficient to serve our needs, the demands upon her being comparatively simple. We now find three dietitians busy with a school for student dietitians and the preparation of from 15,000 to 20,000 special diets each year, besides the feeding of other hospital patients and personnel. Many of the special diets must be prepared with the accuracy of the druggist's prescription, requiring a knowledge of food chemistry and care to see that the right patient gets the right diet and that leftovers are weighed.

My attempt to mention in brief space some of the advances in medical science indicates how difficult it is to plan for the future. "Complete" hospitals are few indeed for, at least among the voluntary charitable institutions, funds cannot easily be found to make the necessary changes demanded by scientific advances.

So far as I know, Peter Bent Brigham Hospital was the last general hospital of any considerable size to be built on the multiple pavilion plan. The modern tendency is to build compact multistoried buildings, this block type being less expensive to build, easier to administer and cheaper to operate than the pavilion type of institution.

Had it been foreseen that so much time would be required by our doctors and nurses, orderlies and other attendants in transporting patients from department to department or in bringing services to these patients, I doubt if Peter Bent Brigham Hospital would have been built on the pavilion plan. On the other hand, in a block type of hospital, construction should be such that the interior of the building may be all but completely rearranged when future changes indicate the need.

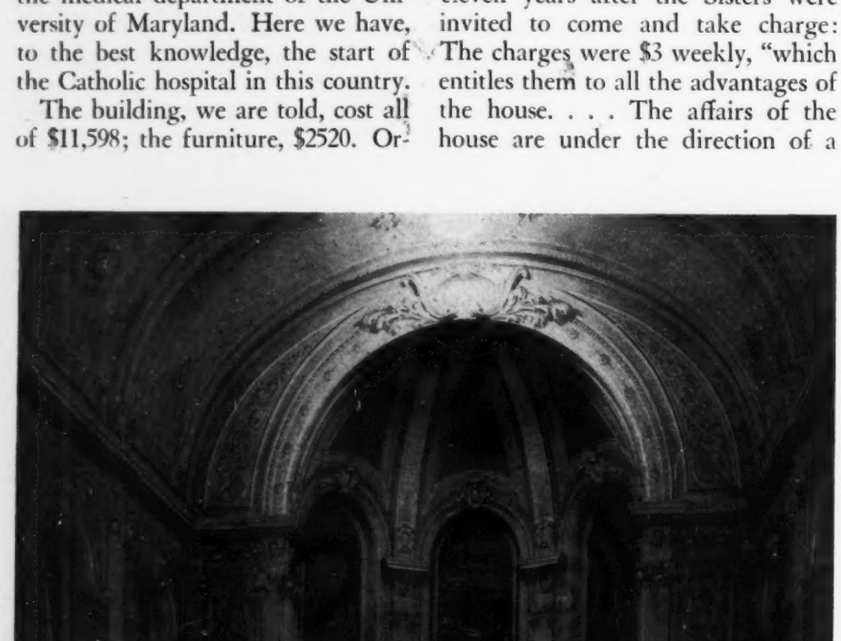
An all too frequent mistake in the building of the block type of hospital is failure to provide adequately for future growth. Even with the best of planning and with exercise of the wisest foresight, it is all but impossible to anticipate the needs of hospitals for the next quarter century.

Our Catholic Hospitals

SISTER MARIE STEPHEN

TO TRACE the beginnings of the Religious in hospital work, it is necessary to go back to 1823 when, in November, the Daughters of Charity of St. Vincent de Paul were asked to take charge of the Baltimore Infirmary connected with the medical department of the University of Maryland. Here we have, to the best knowledge, the start of the Catholic hospital in this country.

The building, we are told, cost all of $11,598; the furniture, $2520. Organized especially for clinical teaching, there were eight wards and about 90 beds. We are now quoting from an article appearing in Geddings *Baltimore Journal* in 1834, eleven years after the Sisters were invited to come and take charge: The charges were $3 weekly, "which entitles them to all the advantages of the house. . . . The affairs of the house are under the direction of a superintendent and its internal economy is attended to exclusively by the Sisters of Charity who devote their constant and unwearied attention with a kindness truly sisterly to the comfort of the sick."



An early regulation was that the Bible be read each day audibly in each ward.

Although the records are incomplete, there is reason to believe that Sister Ambrosia was the first to assume charge. The Catholic Almanac in 1842 pays the following tribute to this pioneer hospital woman, who died in the Infirmary.

"The death of this excellent Sister of Charity was a public calamity. Not only were her services invaluable to the hospital, over which she so wisely and vigilantly presided for so many years, her generous charity was felt far and wide, while the amenity of her disposition and her sweetness of manner gave it a tenfold charm in the eyes of the world."

The next hospital project undertaken by Sisters, according to the best authorities, was at the St. Louis Mullanphy Hospital, St. Louis, in 1828. Four Sisters were in charge of a log house containing two rooms and a kitchen until, in 1831, the corner stone of a brick building was laid. the first hospital of its kind west of the Mississippi River.

The third of these pioneer religious orders to engage in hospital work was the Sisters of Our Lady of Mercy of Charleston, S. C. Let us read what the Catholic Almanac of 1839 has to say about this project: "Hospital of the Society of Working Men—Brotherhood of St. Marino, an association of upwards of 100 respectable, well conducted mechanics and laborers who support this hospital for their own benefit by stated contributions. This establishment is attended by the Sisters of Mercy."

Charity Hospital, New Orleans, whose latest chapter is now being written in the form of a fine new

building to be opened within a year, was the first hospital established through a private gift. A sailor by the name of Jean Louis, the story goes, left 12,000 livres, or $2500, for its founding. Since 1834, the hospital has been under the supervision of the Sisters of Charity.

From this point we find Catholic hospitals being organized in various parts of the country. From 1840 to 1871, 70 such institutions were started, either under the auspices of the Sisters or placed in their charge. Sixteen different orders were represented. Today there are some 850 Catholic hospitals in the United States and Canada.

Under what different conditions these hospitals were operated than ours of today is revealed in looking back into the pages of Catholic hospital history. St. Johns at Nashville, Tenn., for example, began its work in an old church with the Sisters of Charity of Nazareth in charge. An orphanage was conducted in conjunction with the hospital, the girls helping the Sisters in the care of the sick.

Mercy Hospital in Pittsburgh had its beginning in the ballroom of Concert Hall. Such action was prompted by an epidemic of "ship fever" among men employed on the boats on the Ohio River. Incidentally, this was the first hospital in Western Pennsylvania.

Mention should be made, too, of St. Joseph's in Philadelphia, which began its work in a small frame building as a result of the efforts of Father Barbelin. This was managed by the Sisters of St. Joseph of Carondelet. Then there was St. Joseph's Hospital in St. Paul, Minn., built of stone and four stories high. Unfortunately, cholera broke out in the city before its final completion with the result that an old log building formerly used as a church had to be converted into a hospital.

Now we come to interesting information contained in the Catholic Almanac in 1849 regarding St. John's Infirmary, Milwaukee, the first indication of a definite policy regarding hospital management.

"This institution was opened for the sick on Monday, May 15, 1849, under the charge of Sisters of Charity from St. Joseph's, Emmitsburg, Md. The house is large, commodious, built in the healthiest part of the city. Three apartments are allotted to patients generally; but select rooms may be had by those who are qualified to prefer them.

"As the Sisters of Charity are to be the only nurses and attendants in the house, none need fear the absence of sympathy and eager vigilance. The very title and profession of a Daughter of St. Vincent de Paul are sufficient guaranties to the public that there will be no departure from the strictest order, the greatest cleanliness and the most unremitting attention.

"Patients may call in any duly authorized medical man they please, but all food and medicine must be administered by the Sisters.

"Any patient may call for any clergyman he may prefer. But no minister, whether Protestant or

Sisters of St. Vincent's Hospital, New York, pause on their way to mass in the hospital chapel (opposite page). All departments and divisions of St. Vincent's are directed by a Sister, who makes those duties her lifework.

Catholic, will be permitted to preach to, to pray aloud before, or interfere religiously, with such patients as do not ask for the exercise of his office. The rights of conscience must be held paramount to all others."

At the middle of the nineteenth century, there were but two hospitals in New York, the New York Hospital and Bellevue. New York Hospital was an endowed institution and was meant especially for the better classes. Bellevue was controlled and supported by the city government and its care for the sick was as poor as could well be imagined.

The year 1849 witnesses the introduction of a third hospital, St. Vincent's. Sponsored by Archbishop Hughes, this became the first free hospital in New York depending upon voluntary contributions. Its organization was marked by conditions so straitened that it was difficult to see any improvement upon old methods for a good while.

St. Vincent's Hospital was destined to do much to relieve this unfortunate state of affairs and its history and progress may be regarded as fairly typical of the advance of Catholic hospital work throughout the country. The Sisters had no fund at command, and therefore could only rent a three story brick dwelling house. The sum of money necessary to pay the rent in advance and to furnish the house was provided conjointly by the Very Rev. William Starrs, vicar-general of the diocese, and by the Mother House at Mount St. Vincent. The hospital was opened for the reception of patients Nov. 1, 1849, under the management of the Rev. Mother Angela, sister of Archbishop Hughes, with four Sisters.

A homelike playroom presided over by Sisters adjoins the children's ward. Right: A glimpse into the nursery and, below it, a patient receiving deep x-ray therapy. Left, below: The operating room, with an operation in progress.

At this time the hospital had a capacity of 30 beds, but this required giving up all the rooms to the patients, so that the Sisters had no room for themselves; they ate, slept and rested in a single room, or had their beds at the ends of the halls. So great was the demand for the hospital facilities that a year and a half later, in May 1852, an adjoining house was rented, and accommodations thereby provided for 40 additional patients.

In the midst of all this serious inconvenience came the typhus epidemic of the fall of 1852, still further to complicate the situation, and to fill the hospital to its utmost capacity, because so many patients wanted to be with the Sisters during the dreadful disease, as many of them believed they would die.

After the typhus epidemic was over, though the hospital was ill-appointed and must have been in so many ways uninviting the applications for admission continued to increase daily. In 1856, a building on the site of the present hospital was rented from the board of managers of the Roman Catholic Orphan Asylum. This building had been erected for an orphanage, and required extensive alterations to adapt it to hospital purposes.

A fair was held for the hospital in the Crystal Palace in 1859, and another, in 1860, and the sum realized amounted to $45,000. This enabled the Sisters to make the necessary repairs, to purchase an adjoining lot and to erect two wings, leaving a

balance which was set apart for the building fund.

Thus enlarged, the hospital was capable of accommodating 140 patients. There had not been room for all those who applied for admission before, in spite of the great inconveniences, and now under the much better conditions the demand for admissions increased very much. It was felt that many who came to the hospital could afford to pay something, and accordingly, a fee of $3 per week was charged.

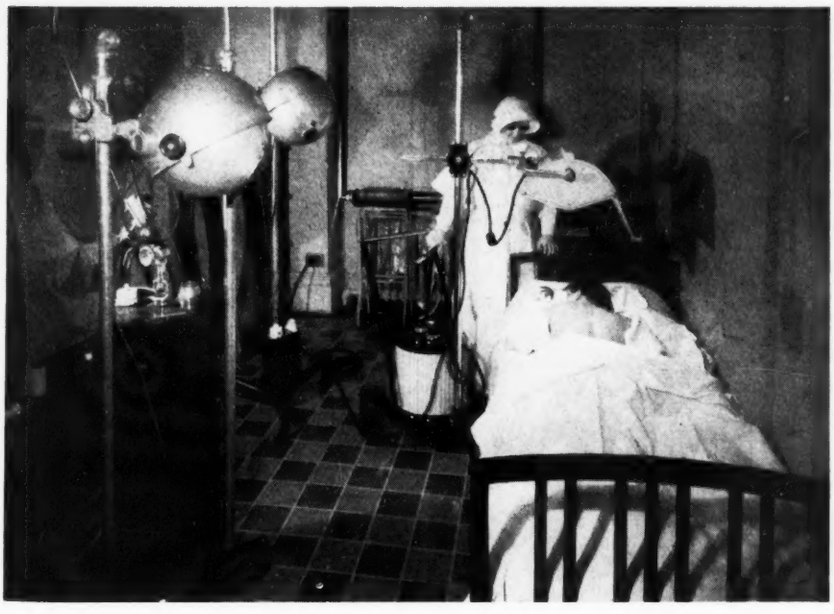
Private rooms were provided in some dwelling houses, purchased by the Sisters, and patients who were able to pay for the seclusion and comforts of home were transferred to these quarters. This solved, to some extent, the problem of the maintenance of the hospital for a time.

In 1880, the small private houses were demolished, and the present structure for private patients was erected. It was open for the reception of patients in December 1882. On the completion of this structure, the question of furnishing rooms and wards became urgent. The hospital had no funds for the purpose, and the debt was already so large that the Sisters were unwilling to increase it for a purpose only indirectly connected with charity. A personal appeal was made to friends and met with a prompt response.

This new building added to the prestige of the hospital and enabled it to do much more work than before. It became one of the great institutions of the metropolis, known everywhere and visited by physicians and those interested in the care of the sick all over the country.

The problems facing our Catholic hospitals today are far removed from those that confronted not only St. Vincent's in New York but countless other institutions scattered about the country during those early days. But they are problems, nevertheless, problems born of a world in a state of transition, of the breaking down of old social orders and the establishment of new. Modern equipment, improved asepsis, higher educational standards make the old days seem remote, indeed. Yet one characteristic of our early Catholic hospitals still prevails — the spirit of service, of devotion and consecration to the care of the sick.

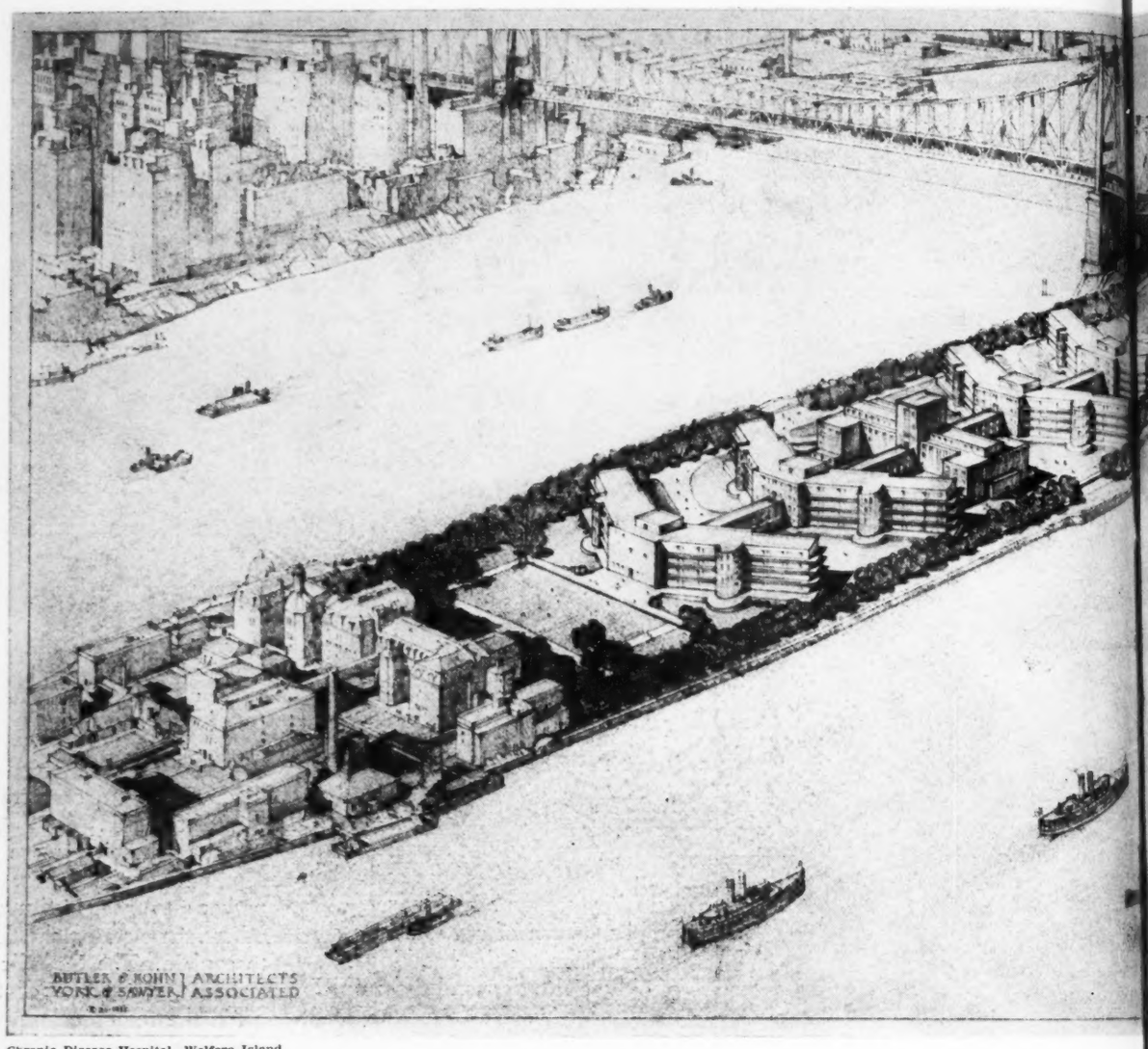
The head of the dietary department directs the preparation of formulas for the newborn.



"Less a hospital, more a home" is a phrase applied more frequently, perhaps, to these institutions than to others. The reason should be simple to explain. The Catholic hospital is a home, the home of the Sisters.

All the requisite hospital facilities are there and something besides. In charge of the various halls and operating rooms are Sisters, graduate nurses whose sole responsibility is to those entrusted to their care. The dietary department, the x-ray department, the various supply units, each division of the hospital organization, is in charge of a Sister to whom it represents her life work.

There is another reason, too, why the Catholic hospital has an atmosphere different than any other. You will find it in a room, sometimes large and pretentious, sometimes small and simply furnished, but always present: a chapel set aside for prayer and meditation. There, night and day, burns a little red sanctuary lamp. Every Catholic recognizes the significance of its presence and through it every nun, and countless others as well, gains strength and power to endure in this "House of God."



Chronic Disease Hospital, Welfare Island
Butler & Kohn, York & Sawyer, architects

Unfinished Business—

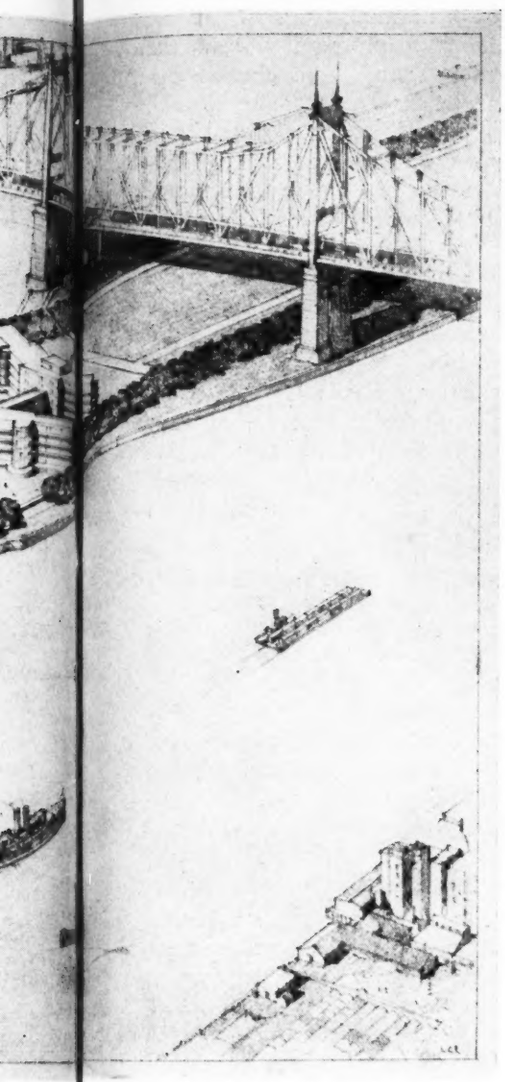
E. M. BLUESTONE, M.D.

THE position of chronic disease in the scheme of communal organization has moved up on the agenda in recent years. Discussion groups are beginning to recognize the problem at last and some, in their enthusiasm about the possibilities, are doing something about it.

The Department of Hospitals of the city of New York, influenced in large part by the success of the only philanthropic hospital for chronic disease in the city, is featuring a program for the care of chronic patients, with the 1500 bed hospital shown above, including a research division, as a beginning. It is somewhat unfortunate that this modern institution had to be located in an isolated position but the project is there as proof that the city fathers have recognized the importance of chronic disease.

The Welfare Council of New York City has surveyed and published its findings in the field of chronic illness and has thus exerted considerable influence on the program of the Department of Hospitals. The inquiring social agency, armed with the facts and aided by the success of a model hospital for chronic disease, has had the sympathetic ear of the taxpayers' hospital representatives. We may now look ahead with hope.

There is additional evidence of interest in the subject elsewhere, though not to the same degree. At this moment the question is this: Will the community benefit from all that it has learned recently in the subject of chronic disease and continue to develop an institutional program for its management; or will it, possibly in default of an adequate philanthropic contribution, return to the almshouse—that unhappy dumping-ground of the general hospitals for



"Chronic" Patients

Our communities need more philanthropic (including medical) interest in those chronically ill

those who are helpless and have no one to speak up for them?

There is more to the definition of chronic disease than duration, important though that is. Fundamentally, the "chronic" patient differs from the "acute" patient in that the former suffers from a disease which is of comparatively long duration, while the latter suffers from a disease, and possibly from the same disease, which is of comparatively short duration. One person may react acutely to a disease that might make another a chronic invalid.

There is no sharp dividing line between the two and that is one reason there are acute patients in chronic hospitals and chronic patients in acute hospitals, much to the annoyance of the authorities of both and, particularly, of the acute hospitals. Yet hospitals formulate their policies as if the two were mutually exclusive.

Take the criterion of curability, which has a subtle but potent influence on hospital policy. Do you remember the time when the mortality rate was taken as an index of the efficiency of the hospital? Are we justified in this day and age in accepting a high percentage of cures as proof of efficiency?

The acutely sick patient is, in most instances, curable. Acute disease is largely self-limited. The prognosis is good. The mortality rate is relatively low.

Chronic disease, on the other hand, is not only long drawn out, but often incurable by any known methods of therapy. Chronic disease is almost never self-limited. The prognosis is not often good. The mortality rate is relatively high.

Nature is a valuable ally on the side of the acutely sick patient but appears to have exhausted her efforts for the chronic patient. Whatever the service that medical science may render to the acutely sick patient, it finds its greatest sphere of usefulness with the chronic patient, who is, indeed, a challenge to its best efforts. The chronic patient requires not alone good nursing but the greatest possible amount of scientific interest.

The emotional attitude of the chronic patient is one of resignation, though he is not, of course, reconciled to his troubles, while that of the acutely sick patient is one of aggression. In the acutely sick patient the battle rages fiercely, with all offensive and defensive weapons in play. Not so with the chronic patient. Here the time element, as well as the weapons, change the picture. It is literally true that the chronic patient is long-suffering. His problem does not have a medically urgent character and therefore does not compel an immediate response by the community. Whatever urgency there may be to the problem is largely social.

The acutely sick patient is almost always prostrated and bedridden, while the chronic patient is sometimes bedridden and sometimes ambulatory. In the acute case the handicap is temporary; in the other it is more or less permanent. It is clear therefore that the chronic patient requires all of the facilities of the acute general hospital plus a number of additional facilities for the treatment of his particular condition. Such forms of treatment as physical therapy, radiotherapy and occupational therapy have special meaning in the treatment of the chronic patient.

The majority of acutely sick patients are in the younger age group, while the majority of chronically sick patients are in the older age group. The young are naturally better fitted to struggle with disease than their elders, who have, in most instances, the handicap of a medical history as well as age.

The economic aspect needs emphasis. The acutely sick patient, being in the younger age group with a shorter illness period, is in a better position to finance, or to help finance, the cost of his illness. The chronic patient, on the other hand, has spent whatever money he had in his efforts to find a cure. The chronic patient can buy medical service if he has any money left, while the acutely sick patient may have it immediately whether he can buy it or not.

Whatever funds may have been available at the onset of chronic illness, these are seldom enough to

carry a patient beyond the acute phase of his disease. A short-term illness may or may not be an expense to the patient, but a long drawn out illness, with little hope of financial or economic recuperation, is almost always an expense to the community.

The cost to the public of maintaining an acutely sick patient in a general hospital is at present about one third higher than the cost of maintaining a chronic patient in a general hospital. Because of the difference in the duration of the illness, the acutely sick patient will prove to be less expensive to anyone in the long run.

The average stay of patients in the acute general hospital is about two weeks while the stay in the hospital for chronic diseases is many months and sometimes years. While the acute patient is more expensive to maintain within a shorter period of time, the chronic patient is more of a drain on the community because of the long duration of his illness and the correspondingly reduced chances of any financial return. The chronic patient is far more frequently found in the public charge classification than the acutely sick patient.

Distress Signal Necessary

It is at this point that we must call for help from the philanthropist or, in his default, from the taxpayer. While in the voluntary acute hospital the patient shares with the taxpayer and philanthropy the cost of his maintenance, the proportion is sharply reduced in the case of the voluntary chronic hospital.

In a typical voluntary hospital for chronic diseases, the ward patient contributes less than 3 per cent of the cost of his maintenance and the hospital is, therefore, dependent on other sources for the remainder. Thus the acutely sick patient is a better economic investment for the philanthropist and for the community.

From the point of view of the social worker, the removal of the chronic patient from the family surroundings is in itself the most grateful piece of social service than can be done, while in the case of the acutely sick patient it is only an incident of his social treatment. Because of the strain, physical and spiritual, resulting from the presence of a chronic patient in the midst of a family, a unique situation exists in which the social qualifications of the patient assume equal proportions with his medical qualifications.

From the point of view of the physician, the chronic patient represents a difficult problem in medical science, requiring skill, originality, interest and, above all, patience. Special provisions must be made to attract a medical staff qualified to treat the chronic sick from all these points of view. One must be careful to obtain a staff that has selective interests in the various categories of chronic disease.

The physician who gives his time freely for the treatment of the acutely sick patient in hospitals in return for certain rewards in practice and in prestige is reluctant to give as much to the hospital for chronic disease where the economic return to him is smaller, where more originality and skill are required and where his efforts are not as successful.

The dumping process, by which undesirable patients are passed on to public institutions of doubtful character, is a confession of weakness and a danger signal that all is not well with our humanitarianism. The chronic patient must stay on the agenda as unfinished business, so far as the philanthropist, the taxpayer, the doctor and the social worker are concerned.

Humane Planning Essential

If we will face the definition with an open mind, we will hesitate before driving the beggar from our door because he is breaking our hearts. The selection of patients for admission and their retention will have a more humane basis than prevails at the present time. The problem is close to us, as every hospital administrator learns early in his career.

We are going to hear more and more about chronic disease as the years go by, since the average length of life is increasing. We should, therefore, accept the task of planning humanely and scientifically for these patients.

We must agree from the outset that the chronic patient requires the interest of philanthropy, whether he may yet become a productive member of the community or not. If the strong are to protect the weak, the patient suffering from chronic disease, whether he is young or old, curable or incurable, susceptible to treatment or not susceptible to treatment, must find a satisfactory place in our scheme of medical organization.

If we will keep the chronic patient with us, we will accomplish more than we will by transferring and isolating him. The average medical practitioner makes most of his living from chronic patients, since they form the bulk of his practice, yet the general hospital will not accept them or, if it does, will not retain them.

Should Be Near General Hospitals

In the private, or so-called voluntary, group of hospitals the legal right of selecting patients for admission exists and, as a result, only those patients are admitted who have interest for the staff, all others being referred to public hospitals or almshouses. Patients who show promise of dramatic or spectacular results from treatment are more fortunate.

Chronic patients are still being cared for mostly by government agencies, homes for the aged without hospital facilities, homes for incurables (where patients are admitted as if a life sentence had been pronounced from which there could be no appeal) and almshouses.

What the community needs is more philanthropic (including medical) interest in the chronic patient, regardless of his age, curability or clinical condition. This could best be obtained by integrating the care of the chronic sick with the general hospitals.

Future planning should locate homes for the aged, hospitals for chronic disease and so-called homes for incurables in close proximity to general hospitals where all scientific facilities are available at a moment's notice.

We need not be pessimistic about the disproportionate investment for the care of the chronic sick since the lessons in humanity are to be learned at the bedside of these patients and they do, in fact, repay in research value many times over again the investment that is made in them.

A Simple Bench

ADA BELLE McCLEERY

MORE than sixty years ago in an address before the alumni of Williams College, James A. Garfield made this statement: "Give me a log hut, with only a simple bench, Mark Hopkins on one end and me on the other, and you may have all the buildings, apparatus and libraries without him."

From that day to this educators have quoted this tribute to the president of Williams College to show the part played by the teacher in awakening and directing the young mind in its search for knowledge and wisdom. They have emphasized that the true teacher maintains a contact with his pupil; that he leads, directs and, when the need arises, pushes the groping mind into new channels of thought.

One does not belittle the teacher-pupil relationship by pointing out that the influence of one individual on another is not confined to any one situation. It is present whenever two or more human beings are together. It is a factor to reckon with in family life, in business circles, in clubs and in churches. It is not restricted to any one race or creed. It permeates all relationships. It is so general that no life functions fully unless the social relations are successful.

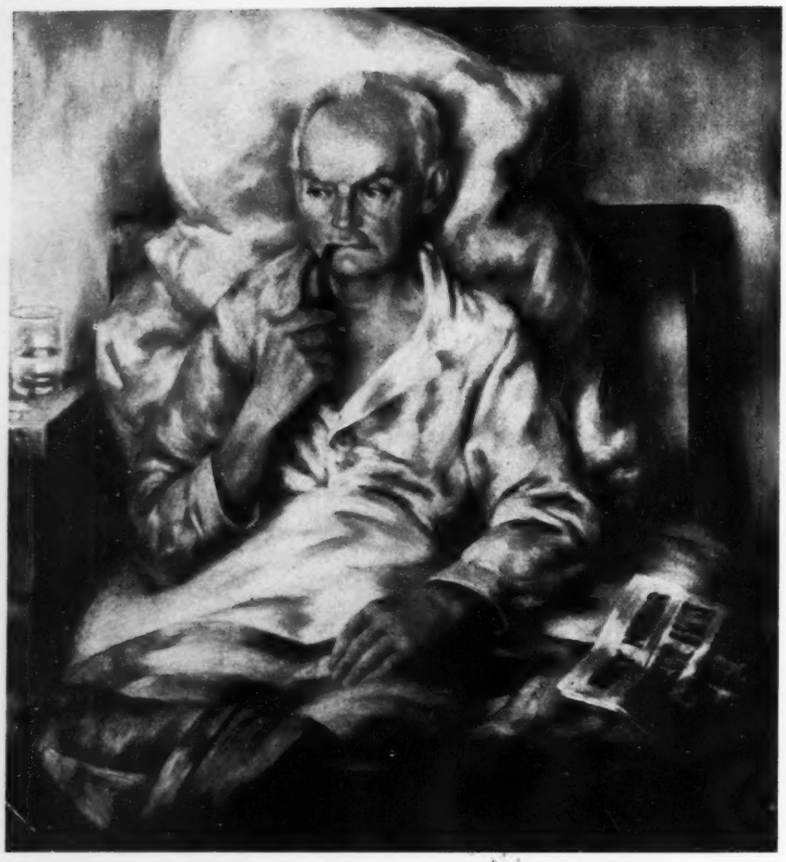
Successful social or personal relations are difficult to attain in a hospital. On the one hand is the working force; on the other, the patient. The workers are a mixed group. They differ in education and cultural background. They represent many nationalities, often several races. Their technical skill ranges from manual labor to high professional proficiency. There are conflicting personalities and unfortunate temperaments. There are, also, idealists, humanitarians and unhallowed saints. Although the working force is a heterogeneous organization it has a great common denominator. This common denominator is the patient.

The patient, however, possesses many of the attributes and characteristics of the workers. Moreover, he suffers both physical and mental pain. His physical pain is caused by the physical injury to his body. But his mental pain is due to his fundamental resistance to such injury. Often, in addition, he is in the grip of fear; fear engendered by the strange environment and accelerated by the uncertainty of diagnosis, the unexpected expense and the jeopardy of his job.

Therefore, the fact that the recovery of the patient is in some mysterious way linked to his personality experience is a factor not to be disregarded.

Gordon Samstag's study of two loyal hospital workers.

If the experience is good or pleasant, the personality expands; if it is bad, an antipathy is established. The degree to which a personality expands or contracts varies with individuals. Although one may not be aware that expansion is taking place, often one is conscious of thought processes whenever adjustments or adaptations are being made. This is especially true in hospitals. Doctors and nurses can almost see the wall that the patient is building around his personality. Consequently, even though successful personal relations are difficult to attain, it is necessary for the good of the patient



The common denominator of the hospital working force is the patient. In this painting by Russell Cowles, the patient is convalescent.

that all hospital personnel learn something about what sociologists call the technic of accommodation.

Such a technic is divided into three stages. In the first stage the worker puts himself in the place of the patient. He becomes the patient in thought. Thus doorman, admitting clerk, orderly, nurse, intern and doctor each in turn becomes the patient and looks at routine procedures with the patient's eyes. Immediately, the contacts become less stereotyped, the hackneyed questions take on new meaning and a kindlier atmosphere prevails. The patient relaxes.

The second stage demands a high degree of perception on the part of the worker. He must find out and remove those things that affect the patient adversely, things that antagonize the patient or make him restless.

These things differ just as patients differ. One patient may be unable to endure the noises of the ordinary ward or floor while another may enjoy the sounds of activity. Color that is pleasing to one is objectionable to another. Food, odors, flowers, pillows, mattresses, voices, footsteps are only a few of the many things that have a bearing on the patient's happiness. To sort them out and to give each its proper place in the worker-patient relationship are painstaking processes. But like all processes they improve with use until, in time, a habit is formed.

Experienced hospital administrators have seen this habit illustrated when a nurse who has mastered this technic takes charge of an obstreperous ward. Almost without effort she brings order out of chaos. She senses which patients should occupy adjoining beds, which windows should be opened or closed and which patient needs his ego fed. Within twenty-four hours the clamorous ward changes to a quiet and orderly one.

The third stage of the technic is a natural outgrowth of the second. For in it an effort is made to release and stimulate the personalities involved. The effort of the worker may be assisted by such material things as books, daily papers, growing plants and birthday cakes. A common method of helping in this release is the one of sharing experiences. The pleasure a patient takes in a dozen baskets of flowers is not based always on appreciation of the beauty of the flowers. Rather it may be his consciousness that the donors of the flowers are sharing with him his experience of being ill.

Other personalities expand in the occupational therapy workshop. Learning a new skill and letting the mind direct the work of the fingers not only satisfy the creative urge but also represent a joint effort; thus the thing becomes a common possession.

Often the hour the patient spends in the sun parlor will do more to stimulate a jaded appetite than any drug. For it may give him an opportunity to compare his experience with others. The comparison may be the degree of jaundice or it may be some totally unrelated incident. Whatever the medium if it assists the patient to expand his personality it is a benefit.

During the last quarter century there has been a great increase in the scientific content of hospital service. Undreamed-of discoveries will place even greater emphasis upon this aspect in the years to come. Because of the rapid changes that are taking place it becomes constantly more important not to lose sight of the patient's personality. Therefore, the hospital of the future will not be doing all that it can for its patients unless it studies how to keep them functioning fully in their social relations.

Because this ideal is difficult to carry out, it should be accepted as a distinct challenge. As a first step in meeting the challenge an effort could be made to inculcate into the minds of all hospital workers the thought that there is always a simple bench joining two people and the patient is always on the other end. Furthermore, the worker, like the teacher, must do all in his power to direct the patient, to awaken his interest and, when the need arises, to give his thoughts a push into new channels.

When such a program is carried out the attitude of the public toward hospitals will change.

Dealing With Mental Diseases

ADOLF MEYER, M.D.

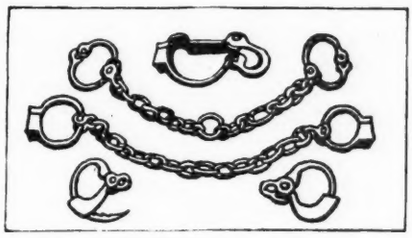
MENTAL diseases were among the first to challenge the administrative interest of physicians. The MODERN HOPITAL, the first journal dealing with administrative leadership in our large hospitals, has a record of genuine interest in the psychiatric field from the very first volume and gave early evidence of the increasing need for administrative attention in this field.

For centuries mental disease was doubly stigmatized: (1) by family concealment and (2) by the difficulty of getting psychology to define itself. Science and the psychologists either quarreled with philosophy and religion or let themselves be unduly influenced by them and they made a confusing and ineffective puzzle of the psycho-functions.

The general supposition was that it is useless to try to understand the behavior and utterances of those mentally ill. Physicians had a preconceived determination to ignore the personal and often obvious facts and to look for less personal causes. This attitude had to be overcome.

The first goal of psychiatry was to relate the abnormal facts to the corresponding normalities rather than to new puzzles, such as the unconscious, or to really unknown hypothetical brain conditions. The physician had to scan the behavior and mentation of the person for openings to redirection along normal channels, and then had to try to remove obstacles and to activate the patient's normal assets. The background, it was found, would yield the facts to fill out the gaps of the "experiment," with due attention also to neurology and physiology, but full attention also to what had been singled out in too great abstraction, as "minding functions," or mind, falsely treated as a quasi-substance instead of a functional state.

It was difficult to obtain an acceptance of man and mentality within the scope of the natural sciences. There was an unfortunate tendency to yield to appearances and tradition by making an abysmal contrast between mind and body, following the dualism of Descartes with his body as the reflex apparatus and the mind as the function of the psyche. This becomes awkward for those who know the dependence of the mental functions on special parts of the organism. The sense organs and the brain and limbs and the rôle of the viscera in emotion are obvious. Yet there was also a paradox in the still overly static pathology based so largely on necropsies with its dogma that the mind could not be diseased; that only the brain could be an object of pathology. This type of mere structure pathology was forced to say that there is "no pathology of insanity as yet." Function is as real as substance.



Chains for restraint of "insane" in the cells of Pennsylvania Hospital, 1752. From Packard's "Account."

These perplexities were largely disposed of by those of us who were familiar with the field and working in it. But it was hard to convince a philosophy ridden and not as yet radically experimental science, as well as the followers of animistic conceptions, that there should be a middle ground. It was hard to overcome the conflicting attitudes of the static psychologists and the skepticism among the physical sciences and to give a status to the facts as found and actually used in life generally and in medical work. These were difficult tasks until we insisted on a frank espousal of an experimental biology and pathology.

Some of us clearly saw no justification for abandoning the data and concepts of critical everyday life and the language and reasoning based thereon. We demanded an adjustment of the concepts and methods of science to the facts on hand and an approximation of the experience with patients to what we know of the normal.

We deplored that Freud also minimized our direct knowledge derived from the normal by overemphasis on an obligatory hypothesis of the unconscious. His was another evasion of the available data in favor of the interpretation of a psychopathology as the upshot of the unconscious parts of the sex-instinct and the intriguing but too mechanistically static system of psychoanalysis.

Without any dogmatic disavowal of the data of the psychological camps and of the Freudians within their limited spheres, but with an increasing understanding of human and animal life, normal and abnormal, we proceeded to the facts in terms of the concept of psychobiology and psychiatry, suggesting that the disorders involved should be viewed as sets of reaction with cause and effect and as experiment-like events variously open to modifiability.

Our determination to study the facts and events as found offers the best reduction to terms of a biographic development or event, to be studied, as any other episode or event, in concrete human beings. They are to be scrutinized for their objective reality and studied as objectively as any "experiment of nature."

The facts involved, the condition of their occurrence, their working and results, their bearing and their modifiability offer the points of attack for treatment and improvement.

These are what active psychiatry allows us and wants us to do: (1) to use all the technical medical training we have, (2) to let it be part of well trained and critical common sense, making use of our natural curiosity and resourcefulness in participating in the events and (3) to allow the patient the status of collaborator to the best of our judgment.

If we want to understand man and

to make ourselves useful, we have to train our objectivity and our own best sense on matters of the personality, including the situation the patient has to face. This means an understanding of the home and the working group, with as much of the actual life as may have to be included for an intelligent picture. The person is not just a mind with memories and outlook and fancies in the abstract but a live organism in action.

In a patient with disturbed person function, we must be able to pull together the facts in a way that allows us to reconstruct the entire development and to focus on what needs heeding, avoiding or using, as we would in handling a case of dislocation of a joint or in treating the functioning of a heart or a kidney. This is what is meant by reduction of the facts to terms of an episode in a life, to terms of an experiment of nature and of the person and the group.

Internists and surgeons alike have learned a great deal about how often the complaints of the patient and the courses of the symptoms depend on the person and on person-function. "Neurologists" and psychiatrists also have learned not to run at once to hypotheses and assumptions of somatic disorders when they deal with emotional and other tangles.

Where True Psychiatry Begins

Psychiatry aims to restore the physician's common sense, to make his medical routine and technicality a part of real life and to make the life, interests and difficulties of the patient, his organs and his settings part of a perfectly sensible procedure. Human mentality is viewed as a natural and essential part of temperament and character, including the patient's personal philosophy and religion.

Most of this need not be twisted into any esoteric and one-sided system of psychology and psychopathology. We learn to penetrate, comprehend and select what is needed to help the patient build bridges or outlooks in harmony with the facts and resources and necessities.

True psychiatry begins when we cease mere "proving of insanity" and when we cease to consider it a "diagnosis" when we call a depression "melancholia" and a delusional state "schizophrenia." Psychiatry begins when we demand an intelligent reconstruction or genetic-dynamic formulation, with evidence, to be sure, of our knowing the technical and ultimate implications.

In this setting our therapy has become more and more natural but also has been enriched with important procedures. Some of these bring the case closer to what the general hospital with its atmosphere of direct action can furnish. But also there will always be a need for the more broadly human use of the twenty-four hours of the day, with sleep, rest, play, some work and social contact. For this we need a special temperament of personnel and a special atmosphere (one different from the hasty and prejudiced impressions many people receive from a visit to one of our special hospitals).

It becomes obvious that it is better to treat the patient close to the home or to the persons of his set when the time for contacts comes. Visitors are no longer largely a nuisance. Protection from the good intentions of friends can be a vital part of treatment, but their use is also obvious.

For all of this, some hospitals are better equipped than others. The special hospitals, even if they bring contact with other patients that may be worse or better, are likely to be the best for the needs of the case and for contacts with trained physicians and nurses. They are more likely to provide unobtrusive protection and play and occupation of a type that spells opportunity for normal functioning and normal living, even of the less favored.

It is important for the patient to have some contact with kindred patients and to learn to appreciate that he is not "the only one." He should learn that mental illness is not just one dismal predicament spelling "insanity," but that there are many different ways of taking the facts and using them under a melioristic rather than pejorative attitude and environment.

While it is important for the family to have adequate orientation as to the outlook and what they should be prepared for in regard to duration and types of therapy and in the wise outlay of money, the atmosphere about the patient should be free of fatalistic labels and terms. Rather it should impart a conviction that there is no case that will not be better as a result of proper study and understanding and of a routine, special treatment and advice. We no longer speak so much of the "early recoverable and mild case" because of an inevitable implication of gloom on other cases not of that description. We realize that some of the most disturbing and apparently alarming conditions can belong to the most recoverable processes.

Provisions for Treatment

Certainly every hospital should be prepared with provisions for the treatment of deliriums, emergencies of excitement or agitation and abrupt suicidal or aggressive states. Some hospitals will offer more of what is needed for a fuller and more far-reaching betterment. Some special ones will actually be devoted to the full rank and file of all types.

The hospital of today has acquired a good many features derived from the specific change of attitude mentioned, namely, consideration of the patient as an important collaborator and not only as the possessor of an organ or function in trouble. Those in charge sense the difference between sick persons and sick organs and the need to follow the tempo and setting of person function. This need is not always best met by bed treatment and by aggressive methods. We know today that mental problems produced by protracted influences may be favorably influenced by fever and shock methods but that in the long run the use of the patient's pace is better than the short-cut of argument and coercion.

The administrator has in this respect an important task. He has to be the moderator between the community at large and the hospital community. The community, if guided by the practitioner or collaborating with him, will learn to respect the different types of hospital provisions rather than mark some of them adversely.

In the field of psychiatry this may lead to a more sensible way of rating hospital facilities. The existing large hospitals will figure as centers with a wide range of provisions and op-

portunities while the average general hospital will represent more concentrated action (examinations and technical exploration and aggressive treatments but less opportunity for the more time-consuming adjustments).

Instead of looking at the state hospitals and sanitariums as homes for chronic patients, hospital administrators, physicians and the public must learn to appreciate the active and intentional nature of their treatment, which gives due opportunities for time-consuming guidance of self-adjustment with as much of normal resources as possible.

The advent of aggressive fever and shock treatment brings to psychiatrists today a great temptation to utilize general hospitals. If it is done with due recognition of the drawbacks and free of any tendency to derogative and pejoristic comparisons resuscitating the old prejudices about the special hospitals and the less responsive cases, there will be a gain. Otherwise, the extension of general hospital provisions may wrongly accentuate a discrimination against the larger hospitals and a corresponding lowering of their support and the zest of their services. What is worse, it may reemphasize old prejudices.

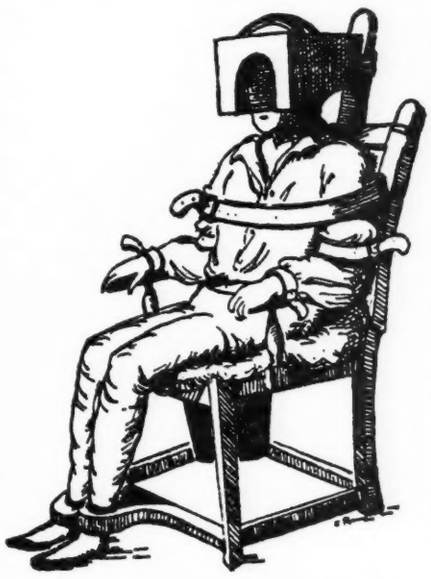
Whoever has to accept responsibility in a case of mental disorder does well to consider the situation as comparable to the problem of a surgeon who may have to open an abdomen. Whoever does that must be prepared for the main emergencies.

The same holds for the hospital that lets it be known that it receives mental cases, especially those hospitals that promise some of the aggressive methods of treatment, such as fever or shock therapies. They should not do so unless they also are prepared to meet emergencies.

One or two rooms that are soundproofed and air conditioned should be available in any community hospital for the care of patients in delirium (not for mere seclusion!). The same may hold for continuous baths. The fact that most psychiatric cases are not at their best with mere bed treatment necessitates provisions for dayroom and occupation space. Some garden space and playground facilities become vitally desirable.

Nonostentatious security from suicide, window protection and avoidance of staircases and other issues should be studied with the advisers on construction and management of the National Committee for Mental Hygiene and other agencies.

From the point of view of the administrator, the first question is that of available personnel. Human beings are more important and more problematic than the bricks and mortar. The diplomas of boards of specialists may help but do not guarantee that every candidate will be the best a hospital and its staff may want to work with. The tendency toward exclusive professionalism among the nurses can become a problem. It can be met only by training less demanding helpers also and by providing satisfactory opportunities of work and by the encouragement of all personnel to share responsibilities.



Rush's "tranquillizing chair," used for excited patients. Sketch from "Some Account of Pennsylvania Hospital," by Dr. Packard.

The director of a hospital must be in a position to take for granted that every person connected with a division for mental cases must be able to meet the whole range of special responsibility, from nursing to enforcing ordinary hospital rules, accounting for material and observing cautions in regard to the patients.

The same holds for the keeping of records. In these days in which we are glad to allow patients to choose their hospital, there is but one way to avoid justified envy or regrets that one did not have the patient from the start. That is through such reports as will leave the successor in charge in no doubt about what had happened under the predecessor. This information should include not only a record of examinations and treatments but also especially the actions and reactions of the patient and family.

The function of the hospital reaches far beyond its walls, and within the walls the ground can be laid to a worthy socializing of medicine. All medical work entails both individual and socialized service. The hospital is the center in which the problem of responsibility concerning disease comes to its fullest test: the right to be sick and also the real conscience of health; the rights and obligations of the patient, of the physician, of the community and of the family in matters of illness and all its responsibilities.

With a more and more obligatory expectation of necropsies and with the verified digests of good records, the profession and the public alike can acquire a sense of security and of dependability of information as to the nature of human illness that may in the course of time give a more acceptable and useful understanding of disease in our population than is the case today.

We also may hope that a most beneficial practical and cultural body of conceptions will come to the public with regard to what "psychology" is. It is likely that even in the schools up to the university and in professional training a more healthy and sound conception of the human individual and psychology will arise, an objective ergasiology or behavior study, one respecting all the inner life of man as well as what comes to obvious expression in action and performance.

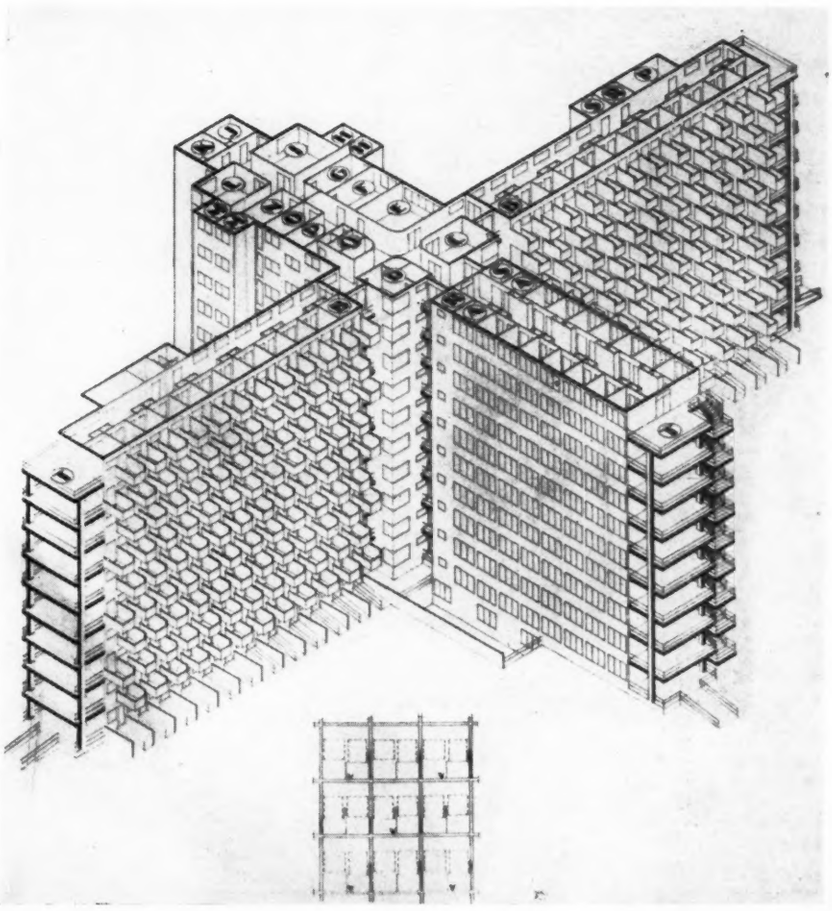
Pathology need not be a study only of bankruptcies, but if bankruptcies occur let them be studied to the benefit of sound economics and in frankly experimental biologic terms. Life can then strive more and more toward a working together of human beings of all grades and capacities in the direction of a democracy of fair deal and a system of mutual respect and relations in keeping with one's capacities, free of coercive relations.

Design of 500 Bed Hospital by Coolidge, Shepley, Bulfinch and Abbott

Design of 500 Bed Hospital by Coolidge, Shepley, Bulfinch and Abbott

Design of 400 to 500 Bed Hospital by Richard J. Neutra

Hospitals of Tomorrow



WITH the sketches on this page, Mr. Neutra sends the following explanation: "This is a California hospital accommodating from 400 to 500 patients. The drawings illustrate the open air character of a modern hospital and the fact that the contemporary architecture, in general, has borrowed significant features from projects designed to serve the sick.

"The physical health and psychologic factors of light radiation and outdoor rest in serene weather, which is frequent in Southern California, have given the keynote to my design. Projecting balconies for the single wards with insufficient morning sun, and ramp connections from the ground floor rooms to the patio are derived from this idea."

Hospital Planning From

MALCOLM T. MacEACHERN, M.D.

HAD Woodrow Wilson, after becoming familiar with the domestic arrangements of the White House following his first inauguration, turned his long-chinned and dour visage toward the hospitals of the day, he would have seen about 532,000 beds in about 5000 hospitals. Although these figures would be a bit blurry, he need not blame his glasses as the figures were not dependable.

Had Bryan, his secretary of state, deigned to examine the "foreign" affairs of the medical profession, his chauvinism would have been stirred up to new frenzy by the dependence of our physicians on Austrian and German medical instruction; his silver tongue would have wagged vigorously (had he deigned to notice) at the import of instruments and gadgets of all kinds.

Gorgas had just completed at the Panama Canal his gigantic demonstration of the value of preventive medicine. Chicago had demonstrated that typhoid fever could be licked; milk was beginning to have the serious attention of the doctors; infant care was being stressed. The vigorous attack of research workers on the scourges of diphtheria, scarlet fever and measles was to result in a remarkable reduction of their incidence during the next quarter of a century. The tuberculosis crusade was beginning to percolate through the voters to the legislators, finally to precipitate during the next twenty-five years into buildings caring for more than 76,000 tuberculous patients.

In 1913 the Mayos were well on their way to popular fame; Crile was on the threshold of his; DeLee was beginning to plan the first of the two Chicago lying-in hospitals he was to build within seventeen years; Murphy was at the top of his stormy career in Chicago. Hornsby and Schmidt had just published their book on American hospital planning and administration. Nurses had lifted themselves appreciably above the domestics but only a small fraction of the distance they were to travel to find themselves, in 1938, with a full-fledged profession.

In those days of the horse drawn ambulance, the convalescent hospital was beginning to make a place for itself. Chronics were relegated to the limbo of the home for incurables, the old people's home or to the casual care of relatives, just as they now are in the horseless days.

When "the tango was turning the country topsy turvy" hospitals were largely adjuncts of the surgeon's art; contagious diseases loomed larger than now; children were beginning to receive hospital attention. Childbirth usually took place at home. Medicine was something dispensed to patients although a few hospitals were already learning that medicine was also a clinical division. A few ventured into orthopedics, appalled at the tremendous need but encouraged by the great opportunities.

The year after Lord Lister died the average stay of a general hospital patient in the United States was from twenty-five to thirty days; today it is but 12.6 days, a tremendous stride in medical and hospital care. In 1913 the death rate in the then registration area was 1407.4 per one hundred thousand; in 1935 for the same area it was 1127.97, a reduction of 20 per cent.

In the eighteen years since its discovery, the x-ray had become an accepted bit of diagnostic equipment to be found in every hospital. It was just about to begin its high speed development which probably amazed even Roentgen by the time of his death in 1922. By 1938 the x-ray had left its 1913 cocoon of one room and a small darkroom and became a full-fledged department in the hospital, often rivaling in size the operating department, acknowledged master in '13.

Madame Curie had discovered radium fifteen years earlier but it was hardly more than an expensive laboratory experiment. The cardiograph was unheard of; metabolism tests were the plaything of a few high-brow medicos. Interns, if any, learned what they could and residents were indulged in by a few of the ritzier. For there was no law requiring internship as a requisite to medical license.

The laboratory in most hospitals of 1913 was just large enough for the intern to do a few blood counts, peer at a few bacteria and do a few simple

Table 1—Hospital Building Construction

Year	*Department of Commerce Estimate of Institutional Building*			*F. W. Dodge Estimate of Contracts Awarded for Hospital Building in 37 Eastern States*
	Private	*Gov't*	*Total*	
1920	$ 33,000,000	$ 34,000,000	$ 67,000,000	
1921	49,000,000	41,000,000	90,000,000	
1922	58,000,000	61,000,000	119,000,000	
1923	63,000,000	57,000,000	120,000,000	
1924	69,000,000	62,000,000	131,000,000	
1925	87,000,000	63,000,000	150,000,000	$ 89,775,200
1926	70,000,000	92,000,000	162,000,000	110,091,200
1927	117,000,000	81,000,000	198,000,000	141,853,900
1928	110,000,000	109,000,000	219,000,000	150,154,000
1929	108,000,000	100,000,000	208,000,000	124,504,600
1930	88,000,000	111,000,000	199,000,000	127,113,100
1931	54,000,000	122,000,000	176,000,000	95,980,900
1932	30,000,000	75,000,000	105,000,000	40,528,300
1933	17,000,000	36,000,000	53,000,000	33,954,600
1934	14,000,000	32,000,000	46,000,000	28,275,500
1935	13,000,000	38,000,000	51,000,000	38,891,100
1936	15,000,000	58,000,000	73,000,000	69,438,300
1937				74,464,200

Days of Nickel Plate

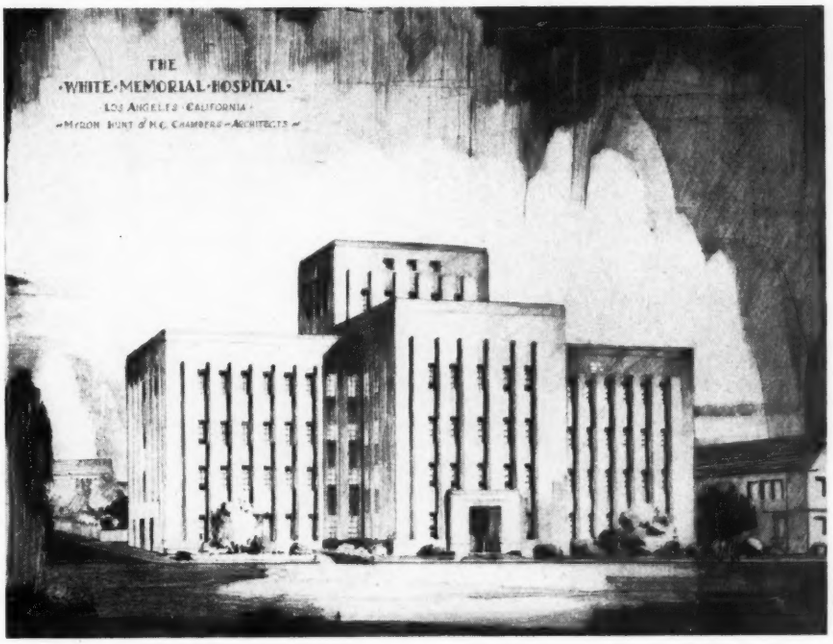
and CARL A. ERIKSON

analyses. Wassermanns were just beginning to be known in that third year after Ehrlich's discovery of "606." Blood chemistry was "pure science."

There were those who were pioneering physiotherapy in hydrotherapies, massage and the mechanical exercisers (Zander apparatus) but the antirachitic qualities of the ultraviolet lamp were not discovered until 1919. Diathermy, fever machines, vacuum boots, underwater exercisers were unheard of. The next two and one-half decades were to see a rapid development of a bewildering array of electrical, electro-mechanical and hydro-electric aids to treatment of the patients. Occupational therapy was to begin its job only after the war.

Hospital food, in 1913, was a take-it-or-leave-it proposition. What little was known was only occasionally applied to the hospital diet. In the intervening twenty-five years an entirely new profession has sprung into existence, that of the dietitian. All classes of patients now receive tastier food, better served and a scientifically balanced and controlled diet, thanks to this new group.

The out-patient department in 1913 was in its swaddling clothes. No figures are available for that year but, in 1916, an American Hospital Committee estimated that there were 1000 out-patient departments and 1300 public health dispensaries. Davis estimated that all of these received annually between 12,000,000 and 15,000,000 visits from 4,000,000 to 5,000,000 patients. The A.M.A. figures for 1935 from 2476 hospitals reporting out-patient departments showed 35,588,640 visits from 9,712,862 patients. If the visits to the 1300 public health dispensaries in Davis' estimate of the 1916 load were eliminated, is it unreasonable to estimate that the out-patient service has multiplied by at least five during the intervening years?



Today's exteriors are simpler and handsomer than the columns, pediments and rusticated stone work of 25 years ago. In the best modern style is White Memorial Hospital, Los Angeles, by Hunt and Chambers.

Another comparison may be made to illustrate the growth: in 1916 an A.H.A. committee reported that there were but nine dispensaries in 1916 receiving more than 100,000 visits; the U. S. Public Health Service survey shows that there were 36 of these in 1936. Obviously, then, it need not cause any surprise to find that generally the '13 dispensary and the '38 dispensary are alike in overcrowding and understaffing.

The era of the private patient began in 1913. About that time the wealthy began to believe their doctor when he told them that the hospital was the place in which to be sick, to rest or to be "checked up." The demands for luxurious accommodations continued apparently unsated through the days of the National Whoopysteria of 1929. During the next few years hospitals learned that the private room had been overdone, yet the home had generally grown smaller and was entirely unsuited and unequipped to care for serious illness. Lack of funds to care for part pay patients left thousands of hospital beds empty, while free beds hardly cooled off between patients.

The hospital building should be a place for the efficient practice of medicine; it should keep pace with the changes that take place in art and science. Yet when we look at the record of the last twenty-five years, the development of the laboratory, x-ray, radium, physiotherapy, metabolism, cardiography, dietotherapy, the elimination of typhoid and much of the contagious disease problem, the increase in maternity and medicine, and the vast social changes, it does not surprise anyone that the hard fabric of the hospital building has not always ballooned immediately to care for the rapid medical changes.

During the quarter of a century since the first issue of The Modern Hospital, hospital capacity has increased from about 532,000 beds to 1,124,548, a growth of 111 per cent. Concurrently with this tremendous growth in number of patients' beds, there has been a much greater proportionate increase in the spaces allotted all auxiliary service. U. S. Department of Commerce estimates show an institutional building volume of $2,167,000,000 from 1920 to 1937. Adding $75,000,000 for 1937

and $60,000,000 per year for the seven years from 1913 to 1920, for which no records are available, we arrive at a total of $2,667,000,000 having been spent for new institutional buildings.

As no statistics are available it is not possible to determine how much of this is for hospital construction. If we deduct 10 per cent (probably high) for orphans and old people's homes, the total for hospital building is $2,400,000,000. If we add 15 per cent for equipment and sites, the expenditures total the impressive figure of $2,760,000,000.

Rorem estimated the total capital investment in American hospitals as of Dec. 31, 1928, to be $3,125,123,000. In the eight succeeding years the Department of Commerce figures show that new institutional building costing $911,000,000 has been constructed. After deducting (as above) for buildings not properly classified as hospitals and adding for equipment, we find that during those eight (largely depression) years $906,000,000, or nearly 30 per cent, has been added to capital investment from building construction alone.

Beds Multiply Rapidly

The year 1913 marked the beginning of this tremendous growth in the size of the hospitals: Johns Hopkins' 600 beds at the beginning increased to 925 at the end; Massachusetts General ballooned from 332 in 1913 to 840 at the end; Mount Sinai (New York), from 509 in 1913 to 857; Chicago's Michael Reese grew from 400 to 666; St. Luke's, Chicago, from 300 to 612; Cook County, from 1700 to 3300; Los Angeles General, from 1000 to 2981.

But this impressive growth is as a molehill to a mountain compared to increase in the services rendered by the hospital. In 1913 the poor used the hospitals but few others, except in desperation. Today everyone uses them; hence the large increase in the number of private rooms and small wards and the improvement of the service to them.

What of the hospital buildings resulting from this great investment? The pavilion plan, imported from Germany for the original Johns Hopkins, had been embalmed in the just opened Cincinnati General Hospital, only to be resurrected and then finally laid to rest in the Peter Bent Brigham Hospital. The vertical *v.* the horizontal hospital was a windy battle of that day with hardly a defender for the horizontal hospital. Goldwater was even then ably calling attention to the eternal verities of hospital planning.

In the year Carrel won the Nobel Prize, the hospital was still a monument; it must look like a palazzo, hôtel de ville, or ducal mansion. The process of streamlining the exteriors has proceeded slowly but inexorably. Today the exterior is simpler and usually more attractive. The current cliché which results in the uncompromising severity of a factory is probably a passing fad to mark the follies of today, just as the columns, pediments and rusticated stone work marked that of 25 years ago.

Hospital planning must necessarily follow medical science whose handmaiden it is. It also has been affected, but not so importantly or so obviously, by changes in construction, materials and methods. Most large cities in 1913 required by law that all multistoried hospitals be fireproof; today this is universally agreed to be a necessity. The materials used for this purpose have changed somewhat, concrete and new forms of fire-resisting construction being used instead of steel columns and tile arches. Ceilings have been lowered markedly, partly because the older theories requiring them were relegated to the garret and partly because the rooms have become smaller. Only occasionally do we find wards of more than eight beds and then generally in metropolitan hospitals with a large free service.

Search for Ideal Floor Continues

The battle of the floors, one of those minor but endless discussions of these twenty-five years, still goes on, but one husky contender, the wood floor, has taken the count. The search for the ideal floor continues.

Noise, the one curse laid on early fireproof hospitals, has been definitely exorcised by sound-absorbing and insulating advances. The "boon of quiet" need no longer be denied the hospital patient.

In the year after the *Titanic* went down, constant emphasis was being laid on cleanliness, coved bases, coved corners in the plastering and doors without panels; a few hospitals were importing steel frames so that the trim about the doors could be flush with the plaster. A few were experimenting with metal cases. The first sanitary laundry chute had been introduced. Today only their absence deserves comment.

The "teens" heard denunciations of "elaborate" ventilating systems; the "thirties" see a demand for a much more elaborate ventilating system, now called "air conditioning." That it has an important job to do in the hospital can hardly be questioned; just what the job is will depend on the results of installations now in place or to be installed.

Lighting Reaches Maturity

Electricity in the hospital seemingly has arrived at maturity. Lighting is better understood and much more useful and attractive. Hundreds of electrical devices have become essential to the treatment, care and comfort of the patient. Not the least of these is the radio.

During the years the quantity and variety of plumbing fixtures have increased many times. Fortunately for the peace of mind of the hospital engineering staff, there has been a concurrent development in noncorrosive pipe. The housekeeping departments, too, bless the advent of chromium plating and the passing of nickel plating.

So, as the years rolled on, the hospital grew more and more complex. The large ward became many small ones; the private room came in large numbers; patient services increased in number; the laboratory ceased being a Bunsen burner and a sink. Many wholly new departments were added; the out-patient service skipped the "leaps" and outgrew the "bounds"; nurses increased in number and their quarters were metamorphosed from slums into sometimes luxurious clubs, and administrative divisions grew as the hospital became bigger and bigger "business."

Just what this has meant in the proportion of building to patients is impossible to estimate accurately. One 650 bed hospital caught up in part with its neglect of the auxiliaries by eliminating 125 beds to provide space for x-ray, physical therapy and similar departments. Another one of 700 beds lost 75 beds in a similar process. Neither of these increased the volume of building.

Comparing a few hospitals as they are today with what they were in

Mold Testing

The careful clinician knows that with dextrose solutions, the large volume injected multiplies the hazard of slight contamination or pyrogen content. Hence he appreciates that while such solutions are *not* government-licensed, they should be tested as exactingly as biologicals which *are* government-licensed.

Dextrose solutions *in Saftiflasks* are given rigid chemical, biological, and physiological tests. Tested by technicians wholly divorced from "production"—in a laboratory equipped for the production and meticulous testing of *biologicals.*

By prescribing solutions *in Saftiflasks* you avail yourself of the skill and experience of this government-licensed biological laboratory—one of the oldest biological laboratories in America.

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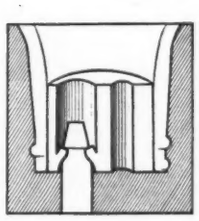

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1913, we find an increase of from 25 per cent to 50 per cent (in one case more than 100 per cent) in the volume of building per patient, largely because of the tremendous increase in the auxiliaries to treatment and diagnosis and in the better housing of personnel.

This brief summary of those things that have influenced hospital planning shows that it has been keenly responsive to medical advances and social needs. The hospital building has not always kept abreast of the needs for no one could foresee the growth of departments or the effect of new demands. We find ourselves today with many (generally new) hospitals, soundly planned and well arranged for the medical practice of today. But there are many more (and that some of them bear the finest names in the hospital world doesn't change the fact) that need radical reconstruction to enable them to function efficiently and economically. Then there is a much larger group with entirely inadequate or improper quarters properly to do the work they are now attempting.

Effect of Declining Birth Rate

As we survey the hospital of today, we realize that its future depends on the progress of medical science and how well it adapts itself to the changing needs of its patients. Has that conjurer, the research worker, any "606" for tuberculosis, any insulin for cancer, any serum for pneumonia? Will the current crusade against venereal disease do as good a job on it and its myriad attendant evils as the crusade against tuberculosis has done during the last twenty-five years and more? Is there any reason why the army of research workers now engaged should not capture many of these and other stubborn outposts of disease?

Paradoxical though it may seem, the research that reduced the need for hospital beds by eliminating typhoid fever and the like simultaneously increased the need by demonstrating the value of the concentration of skilled personnel and equipment which are the hospital. Will further research continue this process? Can we reasonably expect anything different from the research of the future?

In 1924, the horde of immigrants was cut off. We are, therefore, now dependent on natural increase of population for our growth. But with a declining birth rate, with a probably increasing death rate, the Committee on Population Trends estimates that the population in this country will become stable in 1980. Hence, hospitals as a whole cannot be expected to grow in size because of growth of the population of the whole country as rapidly as in the last twenty-five years.

Yet there are many who predict a considerable change in our population centers; they predict quite freely and with seeming logic that a decentralization of industry is now in process as we shift from cumbersome steam to flexible electric power. These prophets expect an increase in the size of the smaller urban communities as the factory follows its market. This means more or larger hospitals in those centers.

But the lowering of the death rate in the past, the elimination of immigration and the declining birth rate will also inevitably increase the average age. There will be fewer children to catch scarlet fever, fewer women of the age to catch babies and many more middle aged and old people. This is the group that suffers the most from obscure ailments, from cancers, from heart disease, from arthritis, so that unless the Medical House of Magic, the laboratory, finds a way out, the demand on the hospitals by these sufferers will be vastly increased.

At the present time this kind of ailment does not lend itself to the quick turnover. The average stay of the patient in the hospital will lengthen, the therapeutic and prognostic facilities of the hospital will expand in response to the need for more and more, better and better equipment and personnel.

Federal Subsidy Is Possibility

At the moment, suggestions for a national health program involving federal subsidy for the care of patients in hospitals are being widely discussed. Already there is a subsidy for the care of crippled children and maternity patients. Should a program such as that proposed by the Roche committee be adopted, what effect would it have on the growth of hospitals?

Some assert that it might increase the use of hospitals considerably, inasmuch as there are many who need hospital care but cannot afford to obtain it though it may be available. Some declare that the so-called surplus of hospital beds is a real excess over the needs of the country. Without getting into controversial discussion, theoretically it would seem that if hospital care is subsidized in a liberal manner for those needing it by the federal or other governments, some communities will find themselves short of hospital beds. Experience, however, with group hospitalization or hospital insurance plans does not indicate that prepaid hospitalization increases the number of patients admitted.

Another part of the Roche program proposes a subsidy for hospital construction to finance a large number of rural hospitals and to aid in the enlargement of existing ones. There may be a few recently built hospitals that need no increase in facilities, no remodeling, no additional beds, but there is hardly one as old as ten years that does not need some or all of these things.

Will the federal aid as proposed be a substitute or a supplement for present state, county, city and philanthropic funds? It would be most unfortunate if federal subsidies would dry up local philanthropic efforts.

Program for the Future

The hospital of the twentieth century must go on with abounding progress and usefulness. It has an ever important primary mission to perform, the care of sick and suffering humanity. Added to this, in no small measure, are other vital functions, such as the education of doctors, nurses and other groups having to do with the sick and injured, the prevention of disease and the promotion of health.

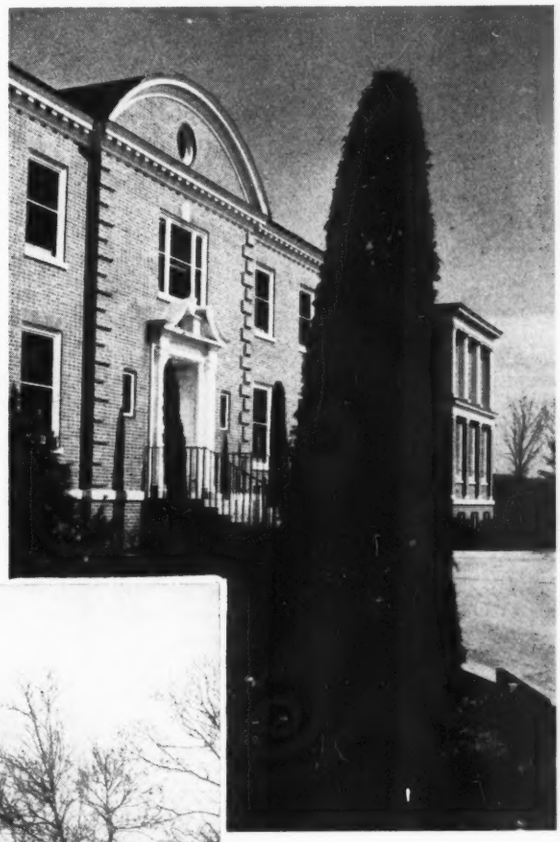
More and more must the hospital become the health center of the community. The unabated advances of scientific medicine and the greater uses of its present and potential services will require constant advances in hospital planning, construction and equipment. But all advances will be evaluated in the quality of the services rendered as reflected in the saving of human lives, the lessening of pain and suffering, the reducing of chronic invalidism and the prevention of disease and the promotion of health.

New Horizons in Rural Areas

W. S. RANKIN, M.D.

THERE are two factors concerned with the development of hospitals: a primary scientific factor and a secondary social factor. In the early stages the scientific factor is usually in the ascendency, while in the later more mature stages the social factor should be in the ascendency. Unfortunately, the social factor is not yet adequately observed in many hospitals, especially those in rural areas and in smaller cities.

The scientific factor is concerned with the inherent and obvious scientific purposes of a hospital. When



Façade of the Holston Valley Community Hospital at Kingsport, Tenn., one of the rural hospitals built by the Commonwealth Fund.

The Franklin County Memorial Hospital, Farmington, Me., a community center which last year gained 39 per cent in occupancy.

Pasteur, followed by Koch and Lister, established asepsis as a necessary condition for surgical procedures, it became necessary to move surgical patients from homes to a centralized place, where the instruments and technic of asepsis had been provided. So the hospital movement began. In the beginning, general hospitals were largely surgical and the small hospital today, epitomizing the genesis and growth of hospitals, is from 60 to 80 per cent surgical.

The diagnostic laboratory, receiving its initial stimulus from the microscope and the youthful science of bacteriology and powerfully nourished through the rapid growth of cellular pathology, added centralization of equipment for diagnosis to the existing centralization of surgery.

In 1895 Roentgen provided the x-ray equipment, which, like modern surgical provisions and the diagnostic facilities of the modern laboratory, is too expensive in cost and too highly technical in operation to be owned and used by individual practitioners. Hence, centralization of the diagnosis and treatment of disease, the primary impulse to hospitalization, was still further strengthened. Subsequent discoveries and inventions, such as the cystoscope, the bronchoscope, the metabolism apparatus and the cardiograph, all have accentuated this centralization process in the diagnosis and treatment of disease.

Closely related to these developments and the direct result of the tremendous expansion of medical science incident thereto was another centralizing influence, namely, the differentiation of labor and special-

Left: Southside Community Hospital, Farmville, Va., one of four hospitals which bill their patients in accordance with a fixed rate schedule that eliminates special charges. Below: Projection of the Utah Valley Hospital, Provo, Utah, now under construction.

ization in the medical profession. The specialist in the professional organization, like the brain cell in the cellular organization, is dependent upon others. He can exist only as a part of an organized mechanism. By the very necessity of his work he is committed to carry on with related personnel which he finds only on a hospital staff. The scientific or primary factor, then, assembles both modern facilities or equipment and specialized personnel, and this is hospitalization.

Without the balancing influence of the social factor, the scientific factor results in an excessive number of small hospitals that represent the interest of progressive physicians, affluent citizens or small civic, religious or fraternal groups. This is frequent in many of the more prosperous rural sections of the country where the scientific interest is strong and the social interest, relatively weak.

The social factor is concerned with the social purposes of a hospital. These vary with the type of community that the hospital serves. Communities needing hospitals may be of three types: (1) the sparsely settled community with inadequate and antiquated medical service; (2) the average fairly prosperous community of from 25,000 to 50,000 people, with a county town of from 5000 to 12,000 people and served by from 12 to 20 physicians, and (3) the more populous section with a commercial center of from 50,000 to 100,000 population or more.

In the first type of community the most important purpose of a small hospital (15 to 30 beds) is to provide modern facilities and skilled assistants, nurses and technicians so as to: (1) induce young, well-trained physicians to take up their practice in the community, (2) make it possible for physicians already in the field to render a better quality of service and (3) enable the physicians, assisted by nurses and technicians, to spend their time in treating the sick who come to the hospital, instead of in driving over large areas and treating the sick without any assistance or modern conveniences.

There are many such communities on our western plains, in sections like Montana and Saskatchewan and in parts of the country in which the population is sparse and travel is difficult, as in the mountainous and seaboard areas. In these sections the small hospital is necessary (1) to bring in medical personnel, (2) to maintain desirable personnel already on the ground and (3) to double, treble and quadruple the services of the from one to four physicians that serve the community. Its effectiveness and social utility should be judged on these grounds and not on the basis merely of its bed occupancy.

In the second type of community the purpose of the hospital is to provide for the care of in-patients with the ordinary medical and surgical conditions. This includes from 90 to 95 per cent of the cases of illness. The rarer conditions needing treatment, generally speaking, are and should be referred to the more adequate facilities and the more specialized profession of the larger centers. The hospital that usually serves this rural community has a capacity of about two beds per thousand population, that is, from 50 to 100 beds. As a rule, such a hospital is without the services of interns.

There cannot be, generally speaking, an out-patient service, as ordinarily conceived, in hospitals that provide care for the foregoing two types of communities. There is usually provided, however, what might be considered a very elementary out-patient service or perhaps, to use a more accurate descriptive term, a first aid service. There are, of course, in the communities served many accidents that call for prompt and local treatment. Most of such accidents do not require in-patient care. This service, however, means a great deal to the communities, in that it promotes prompt recovery, prevents infection and not infrequently saves life.

In the third type, the larger community with a commercial center of 50,000 population and more, serving directly and indirectly a population of from 100,000 to 500,000 people, the social purpose of the hospital is to provide in-patient and out-patient services.

The hospitals of this sized area should have a capacity of from three to five beds per thousand population. This larger central hospital necessarily has to provide not only for the patients with the ordinary medical

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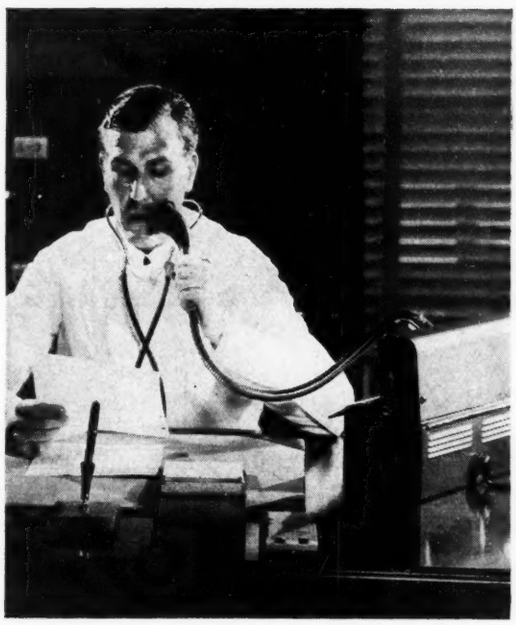

FROM their own experience, hospital administrators, like other executives, have learned how Dictaphone enables them to keep on top of busy schedules. This modern dictating machine often actually *doubles* their ability to get work done. It clears up routine faster and helps avoid mistakes . . .

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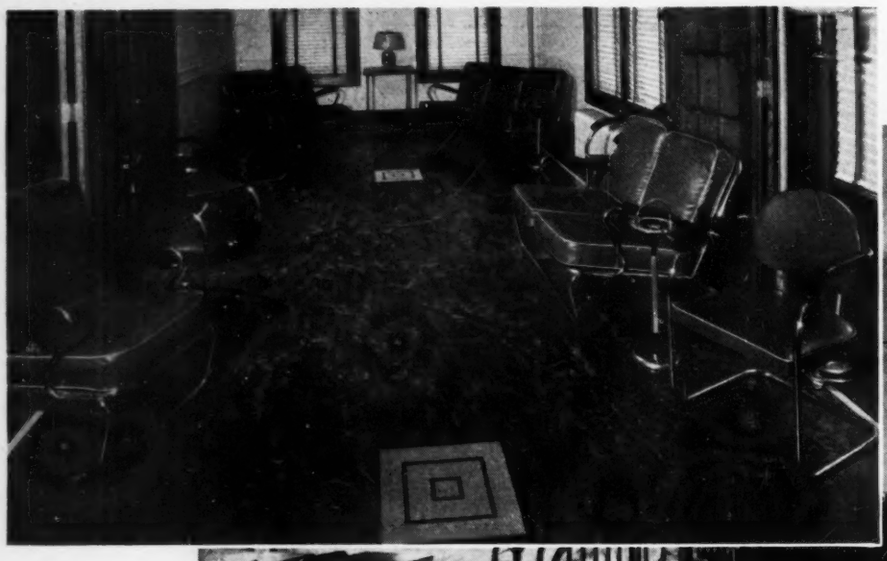

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and surgical conditions but also for patients with serious and exceptional conditions referred by physicians within a radius of from 25 to 50 miles.

The principal distinction between the services and purposes of this third and largest type of hospital and that of the first two types is in its out-patient provisions. These out-patient provisions are made possible through the larger facilities, larger income, better organized differentiated and departmentalized staff and, most of all, through an adequate intern service of from 10 to 20 interns. This third type of hospital can do what neither the first nor the second type can do: maintain an out-patient service that treats from five to ten out-patients for every in-patient cared for in the hospital.

It is this distinctive and large out-patient service, arranged to care for both pay patients and charity patients referred by physicians within a radius of 50 miles of the large hospital for more complete examination, diagnosis, treatment and re-reference, that integrates the hospital into the larger population that it serves and makes it in reality a medical center as distinguished from the ordinary second and first type of hospital. Without a large number of interns such out-patient service is not possible.

Many sections of the country suffer from inadequate medical services while others receive unnecessarily expensive medical services because of the absence of the social factor. This is true for all three types of communities.

There are many communities of the first type in which there is an average of only one physician for every 2000, 3000 or sometimes 4000 population and in which the average age of the local physicians is 50, 55 and sometimes 60 years. Only through the development of a social or community interest in better medical services is it possible for such a community to provide the elemental type of hospital of from 15 to 30 beds, to bring in new blood, to activate dormant medical talent and to multiply medical services through equipment, assistants, and the elimination of travel.

There are many communities of the second type in which the scientific factor, expressed through individuals and small minority groups, unmolded and modified by the larger social factor, results in multiple hospitals, two and three hospitals in population groups of from 25,000 to 30,000 people. This means multiple equipment, multiple overhead and, comparatively speaking, inefficient service. It frequently means two or three privately operated hospitals without community support, with low average occupancy, high per capita per day cost and limited provisions for the dependent.

Rutherford Hospital, Murfreesboro, Tenn., partially supported by a contribution from the county court, serves a population of approximately 50,000.

In many communities of the third type the absence of the social factor is disastrous. Its absence results in from four to six small hospitals of from 60 to 150 beds, possibly with one or two interns and with no provisions for the larger service of an out-patient department. Patients whom the local physicians would gladly refer to an out-patient service under proper social service supervision go without treatment. Many out-patients with minor and curable illnesses become in-patients with serious and incurable illnesses.

Lack of this larger coordinated social interest in cities of from 50,000 to 100,000 population results in many weak, poorly equipped and improperly staffed hospitals where there should be and might be real medical centers, that is, hospitals of from 200 to 400 beds with a well-organized, differentiated and departmentalized staff, with complete intern service and with an out-patient service that reaches ten out-patients for every in-patient treated in the hospital.

The social factor should exercise a growing influence in the hospital field, molding the hospital, giving it symmetry and supporting the interest of the general public. It should exercise a controlling influence over the number, capacity and relationship of hospitals in the interest of the people as a whole rather than in the interest of some individual or some particular professional, religious or civic group.

It is encouraging to note a growing social control over hospital problems, as indicated by (a) coordination and control of existing hospitals and of capital financing of new construction and (b) coordination and control of services rendered by various hospitals and of the current financing of these services, *e.g.* through hospital councils and eventually through the pressure that will be exerted by the increasing contributions made from public funds.

In the work of the Duke Endowment in the Carolinas we have been concerned with all three types of communities, the first calling for elementary facilities, the second for facilities for taking care of the ordinary, 90 to 95 per cent, hospital problems, and the third calling for complete provisions for in-patients and out-patients. The work of the endowment has been, therefore, not only to assist in the operation and construction of hospitals—the usual conception of our interest in the hospital field—but to exercise a molding influence in the development of a balanced hospital program, which often means the discouragement rather than encouragement of the development of additional hospitals.

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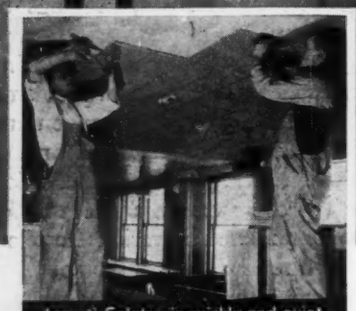
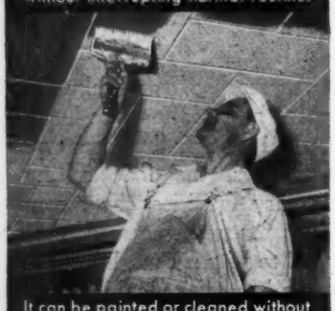


Acousti-Celotex is quickly and quietly installed over existing ceilings, without interrupting normal routine.



It can be painted or cleaned without affecting its efficiency, and is available in a washable enamel finish.

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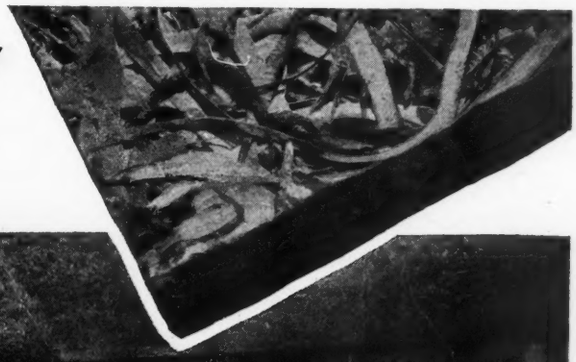

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Equipment Keeps Step With Service

JOHN R. MANNIX

THE development of hospital equipment during the last twenty-five years reflects the advancement that has taken place in medical care and hospital service and suggests the progress we may expect during the next quarter century, for the future can best be judged by a review of the past.

Use of Color

Perhaps the change that would first strike the eye in comparing a hospital of 1938 with one of 1913 is the use of color. The glossy white which covered the walls, patients' room furniture, operating room furniture and even office equipment in our earlier hospitals has almost disappeared. About the only locations where white has remained are in the tile flooring and wainscoting in utility rooms and bathrooms and in plumbing fixtures, and even in these instances some of the more recently constructed hospitals have employed the use of color. The use of soft colors, pleasing to the eye, has helped to remove the institutional appearance from our hospitals and to create a homelike atmosphere.

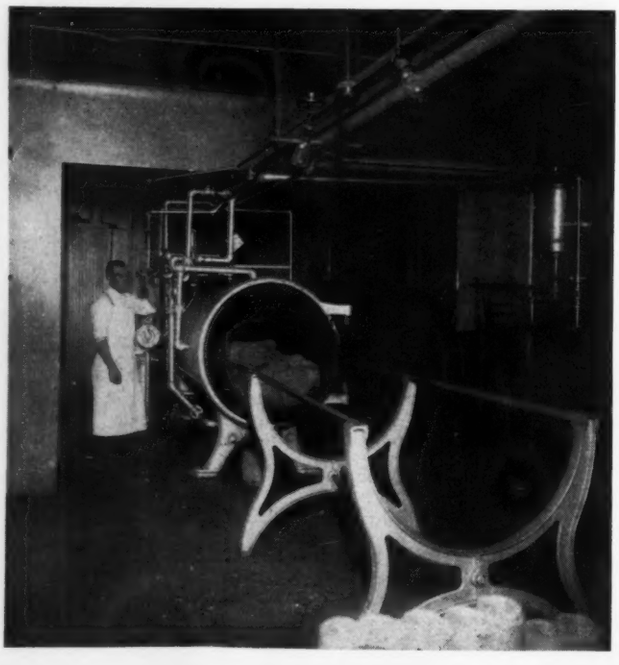
New Materials

During the early part of the twentieth century, nearly all hospital equipment was constructed of cast iron and sheet metal and generally was finished in white enamel or white porcelain. Today, in place of crude castings we have streamlined, electrically-welded equipment of noncorrosive or corrosion resisting metals. We find such metals employed in the construction of operating room furniture, laboratory equipment, sterilizing equipment, kitchen and laundry equipment, elevator cabs and even in utensils, such as basins, jars and trays. We also see the use of wood furniture with a stain resistant finish in patients' rooms, waiting rooms, solariums and offices.

During recent years hospitals have made extensive installations of sound-absorbing materials in order to add to the quiet atmosphere so desirable in a hospital. A variety of materials is available for acoustical treatment and installations are found in corridors, patients' rooms, preparation kitchens, serving kitchens, utility rooms, offices and other areas. Hospitals originally constructed without adequate soundproofing have found it desirable to make such installations.

Fire resisting materials for building insulation are available and these reduce the effect of outside temperature on room temperature and aid in soundproofing the building.

Translucent glass blocks are being used in recently constructed hospital buildings for corridor walls and in place of window sash and ordinary glass in operating rooms. These blocks are attractive in appearance, and, when used for interior wall construction, result in the illumination of areas that otherwise might be dark. The blocks are frosted on the outside and tend to reduce the glare when used in place of ordinary windows in operating rooms.



Installed in 1895 at Presbyterian Hospital, Chicago, this mattress and pillow sterilizer continues to give good service in '38.

Flooring

The variety of facilities in a hospital has made it desirable to use many types of flooring to meet the needs of particular areas. Soft types of floors, such as rubber, linoleum, cork and asphalt tile, are used in patients' rooms, corridors, reception rooms and offices. Hard types of floors, such as terrazzo, quarry tile and ceramic tile, are used where there is heavy traffic and where there is likely to be an excessive amount of moisture; such areas include kitchens, laboratories, bathrooms, utility rooms and basement corridors.

Marble floors have received rather limited use because of the original expense but they are to be found in hospital lobbies and other locations where they add to the decorative effect.

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Baxter's solutions in Vacoliters are instantly available. They save time . . . they save you money . . . they allow your pharmacy more time for other duties. They bring to you a completely new and satisfying conception of intravenous routine. Doctors like to handle cases in hospitals where they know Baxter's Intravenous Solutions in Vacoliters are being used . . . they have come to depend on the convenience and simplicity of the Vacoliter. They appreciate the quality, the purity, the sterility, the *safety* of these fine solutions. They appreciate Baxter economy.

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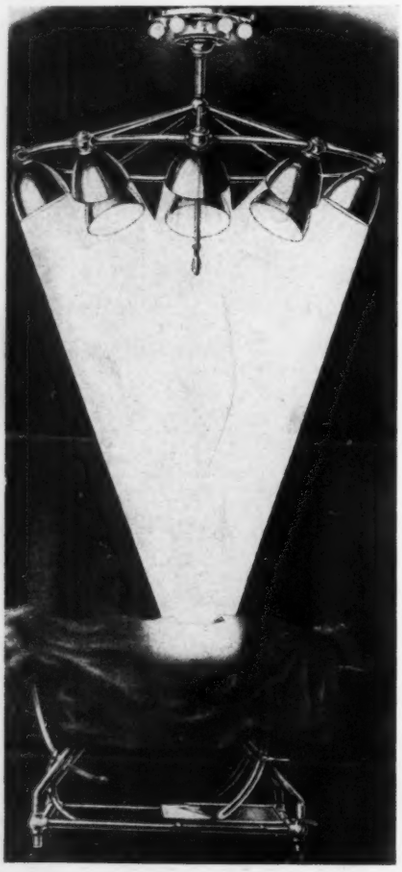
Mobile Equipment

The improvement in casters during recent years has resulted in the use of mobile equipment throughout the hospital. Twenty-five years ago beds were stationary equipment and in rare instances when it was necessary to move them a bed conveyor was used. Nowadays all beds are equipped with casters and many hospitals prefer to move the patient to surgery, the x-ray department, the physiotherapy department or the solarium in his own bed rather than to transfer him from his bed to a wheel chair or stretcher cart.

Mobile equipment now includes stretcher carts, wheel chairs, food conveyors, linen trucks and linen hampers, and two and four wheel trucks for the delivery of supplies. Items equipped with casters are bedside tables, overbed tables, metabolism apparatus, oxygen therapy apparatus, therapeutic lamps, examining lamps, operating room tables and instrument tables. Stretcher carts and the various types of trucks that fold and can be stored in a limited space are now available. Some of the larger hospitals use electrically operated tractors, which make it possible to haul a number of trucks at one time.



While this operating room light cast no shadows and focused the light on the field of operation, it also generated considerable heat.

When zippers were unknown tricky snap-on covers were the last word in efficiency and protection.

Mechanical Devices

The progress in hospital service made possible through the use of modern equipment may be seen when we consider the great number of mechanical devices, many of which are electrically operated, that have been developed during recent years. Such equipment is in use in every department of the hospital, from the operating room and x-ray suites to the offices, kitchen and laundry. To name a few such items, we have fever therapy apparatus, respirators, oxygen therapy machines, electrically heated blankets, stupe kettles, inhalation kettles, incubators, electrically operated breast pumps, suction pressure apparatus, electrically heated ranges, food machines, food conveyors, electric clocks, bedside deodorizers, floor scrubbing machines, check protectors and check signers, billing machines and photographic and motion picture equipment. This listing could go on indefinitely; thousands of mechanical devices have been developed during the last twenty-five years for use in hospital service and provide improved patient care.

Lighting

The illumination of hospital buildings has been improved. Today nearly all modern hospitals have emergency lighting systems, operated by storage batteries or a steam or gasoline driven generator, for the illumination of operating rooms, delivery rooms, corridors, stairwells and elevator cabs when the current fails.

Modern operating room lighting fixtures light the operating field without casting a shadow and are so constructed as to create a minimum amount of heat, thereby adding to the comfort of the surgical staff. Lighting of patients' rooms has been improved in several ways. Ceiling and wall bracket fixtures now are of the indirect type. Portable reading lamps, which also serve as examination lamps, are used extensively. Night lights are available that can be operated from outside the rooms, enabling the night nurse to observe the patient without disturbing him. There also has been an extensive use of illuminated directional signs.

Communication Equipment

Progress has been made in the adaption of communication devices for hospital use. All hospitals are equipped with some type of signaling device, which enables the patient to call the nurse. The type generally used is operated by a push button at the patient's bedside which flashes a light in the corridor over the doorway to the patient's room and in other areas where the nurse is likely to be. More recently, intercommunicating equipment has been installed between the patient's bedside and the nurses' office, which enables the patient to speak directly to the nurse. Some hospitals use standard telephone equipment with satisfactory results.

Another type of signaling device employed, particularly in larger hospitals, is a physicians' in-and-out register. This is operated by a series of switches in a panel board placed close to the entrance used by physicians.

Upon his entering the building, the physician turns on a switch which illuminates a panel bearing his name over the telephone switchboard, notifying the telephone operator that he is in the building.

Physicians' in-and-out registers are often supplemented by a paging sys-

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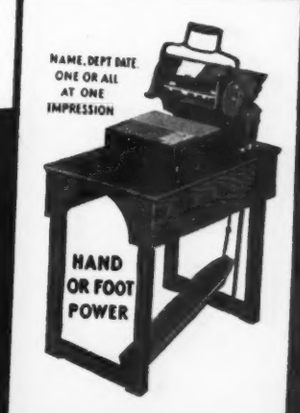


tem that enables the telephone operator to page physicians who are in the hospital building. Such equipment is of three types: (1) the silent type, which flashes an illuminated number assigned to the physician; (2) an audible type, which sounds a soft gong or series of bells, and (3) public address systems, which employ the use of speaking devices and enable the operator to page the physicians by name.

Equipment has recently been installed in several institutions which incorporates the physicians' in-and-out register, the paging equipment and the telephone equipment into a single desk. These desks can be so designed as to provide for the handling of information on patients.

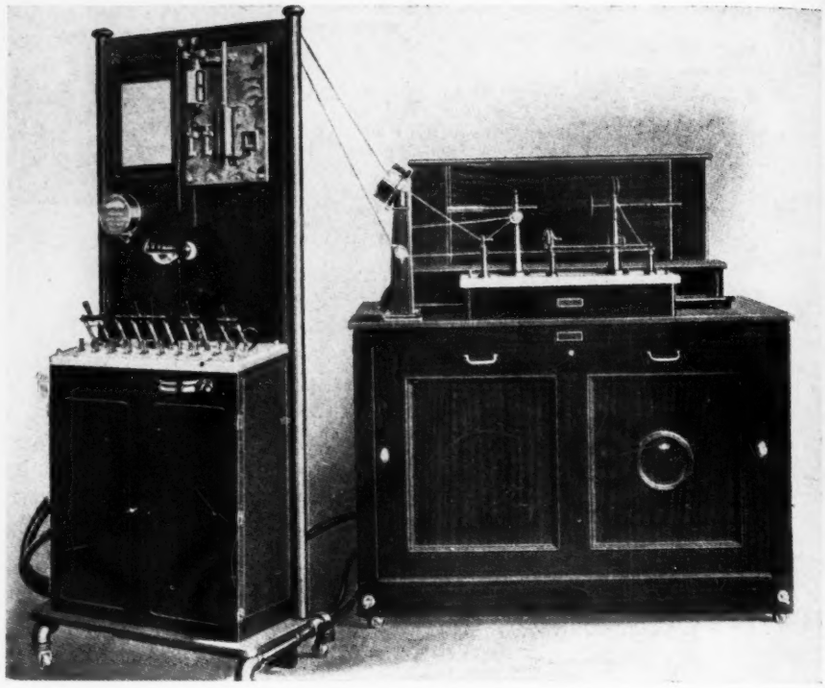
Among the signaling devices installed in hospitals is the fire alarm system. Fire alarm boxes are placed at strategic points throughout the institution and, when operated, register at a central point, generally at the telephone switchboard or at the power plant. City fire alarm boxes are installed at the terminus of the hospital fire alarm system. Such equipment is of value in reducing the interval elapsing between the time a fire is discovered and the time the city fire department is notified, thus minimizing the fire hazard and adding to the safety of the patient.

Many hospitals have installed centrally controlled radio equipment designed to receive from one to four programs, which can be transmitted throughout the building to the bedside of the patient and to the rooms of hospital personnel. Outlets can also be installed in recreation rooms, auditoriums and at other points.

Air Conditioning

Air conditioning has for the most part been limited to operating room suites, delivery room suites and nurseries, although a few institutions have installed individual room units in some private rooms, and several hospitals have air conditioned rooms for the care of premature infants.

Air conditioning in its present stage of development removes dust and dirt, gives adequate ventilation and air motion and automatically controls temperature and humidity. Through the control of humidity, it is effective in safeguarding the operating room and delivery room suites from danger of explosion of various anesthetic gases. It is likely that in coming years we shall see a greater use of air conditioning throughout hospital buildings.



Impressive dignity was the hallmark of this interrupterless transformer of 1915. Single coated glass plates were then used in turning out passably good roentgenograms, a procedure that was replaced by films in 1918.

Window Treatment

A variety of window frames, screens, guards, shades and blinds has been developed to meet needs peculiar to hospitals. Window frames and sash of wood, steel or aluminum, providing a maximum control of ventilation and facilitating window washing from inside the building, have been installed.

Window screens are available that can be rolled into a concealed space above the window when they are not needed, making removal during the winter months unnecessary.

Some hospitals are using screens of an extra strong mesh, which give the general appearance of an ordinary window screen but also serve as detention devices. Window guards are available that are decorative and, therefore, much more to be desired than the old rod type.

Many hospitals have installed window shades that may be operated from both the upper and lower part of the window sash. This permits a greater control of ventilation than is possible with the standard type of window shade. Recently many hospitals have replaced window shades with venetian blinds, which are decorative and permit maximum control of ventilation and natural light.

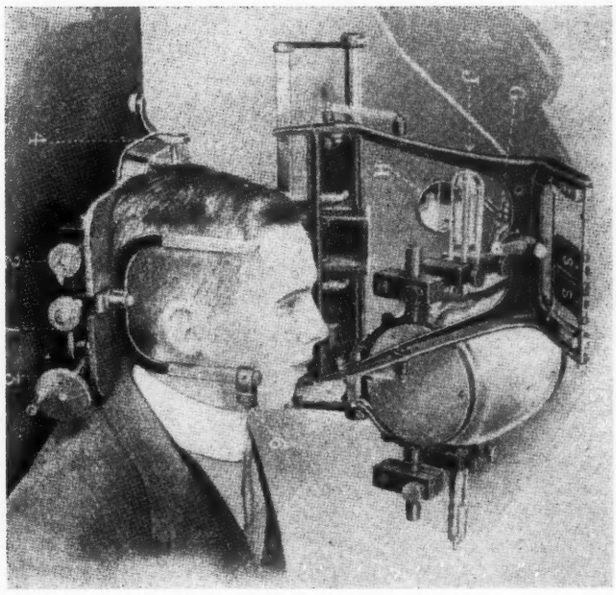
Lightproof shades for fluoroscopy rooms and dark rooms are available and some hospitals have installed electrically controlled shades in auditoriums and other areas where it is desirable to operate all shades from a central point. This type of installation is desirable in a naturally lighted auditorium that is used for motion pictures.

Patients' Room Furniture

Every effort has been made to make patients' rooms as attractive and homelike as possible. The white enamel cast iron bed and bedside tables and hard metal chairs have been replaced with attractive wood and metal furniture, not unlike that to be found in private homes. Overbed tables have been installed for the service of the patient's food tray. Book racks built into the overbed tables, portable reading lamps and bed springs with adjustable built-in back rests facilitate reading in bed and add to the comfort of the patient.

Many hospitals have replaced the cotton mattress with a comfortable inner spring or sponge rubber mattress. Special beds have been de-

An essential of the modern hospital in 1913 was the electrocardiograph (below), which required great skill in operation. At the right, an early apparatus for determining the location of foreign bodies in the eyeball.



signed for cardiac cases and fracture cases, and many beds have a special built-in bedpan feature. Removable side rails, which can be attached to the hospital beds to protect the semiconscious patient, are now available.

The metal chairs have been replaced by well-upholstered easy chairs and comfortable straight chairs. The bedside table has been designed for the care of individual equipment of the patient.

Carpeting and attractive window drapes are used in private and semiprivate rooms. Walls are finished in a soft color, adding to the restfulness of the room.

Many hospitals now use cubicle screening in accommodations with facilities for two or more patients in order to assure privacy. This screening consists of a metal rod, suspended from the ceiling and extending around the patient's bed, on which attractive curtains are fastened.

Operating Room Suite

The equipment in the operating room suite further reflects progress. Rooms are air conditioned and equipped with shadow-free lighting fixtures; an auxiliary emergency lighting arrangement is available in case of failure of the main power supply. There are built-in cabinets flush with the walls for storage of supplies and solutions. Both standard time clocks and stop clocks are available for timing procedures. Anesthetic gases, oxygen, air pressure and vacuum are piped from central supply systems. Anesthesia machines are designed to permit a precise control of the flow of each gas at any rate desired and with a view toward minimizing explosion hazards. All electrical plugs and switches are constructed so as to minimize the danger of explosion from a static spark.

The operating room table is readily adjustable to any desired position and instrument tables, surgeon's stools and other equipment are of streamlined, corrosion resisting metals.

Efficient sterilizing equipment of modern design is available in adjoining rooms. All equipment and facilities are designed so as to create maximum safety and comfort for the patient and maximum convenience for the surgical staff.

X-Ray Suite

Roentgen rays have been known for thirty-eight years only. Twenty-five years ago the apparatus for producing them was still crude and relatively inefficient, and their serious application to medicine had only begun. Single-coated glass plates were the recording mediums. The rays were produced in so-called "gas" tubes and the high voltage necessary for their production was generated for the most part by induction coils operating on direct current and, to a lesser but growing extent, by the so-called mechanical rectifier machine.

In 1913 the American physicist, Coolidge, invented the first practical gas-free, hot cathode x-ray tube, and within the next five years this tube had rendered all other types obsolete. By 1918 films had begun to replace glass plates and by 1930 the use of duplitized safety-base x-ray film had become almost universal. Until the early twenties the filming of thick parts presented almost insuperable difficulties because of scattering but with the invention of Potter's moving grid this difficulty was overcome.

The last five years have been crowded with developments: the substitution of valve tube rectification for mechanical disk rectification; the development of dependable high speed timing devices; the invention of the condenser discharge circuit; the shockproofing of the entire circuit including the x-ray tube; further development of the hot cathode tube to include such devices as line focus, multiple focuses and a rotating anode; the perfection of biplane fluoroscopes and the invention of apparatus for filming at one particular level in the body. Recent years have seen revival of interest in the x-ray kymograph and there have been increasingly successful attempts at x-ray moving pictures.

Methods and instruments for measuring x-rays indirectly and directly have been perfected and as a result the therapeutic use of x-rays has been placed on a sound basis. Of the three most important developments in therapy, two have been mechanical: (a) the ability to produce x-rays of extremely short wave length, and (b) the adoption of the roentgen unit as a measurement of x-ray intensity and of instruments for measuring it. The third, a nonmechanical advance, is the more ade-

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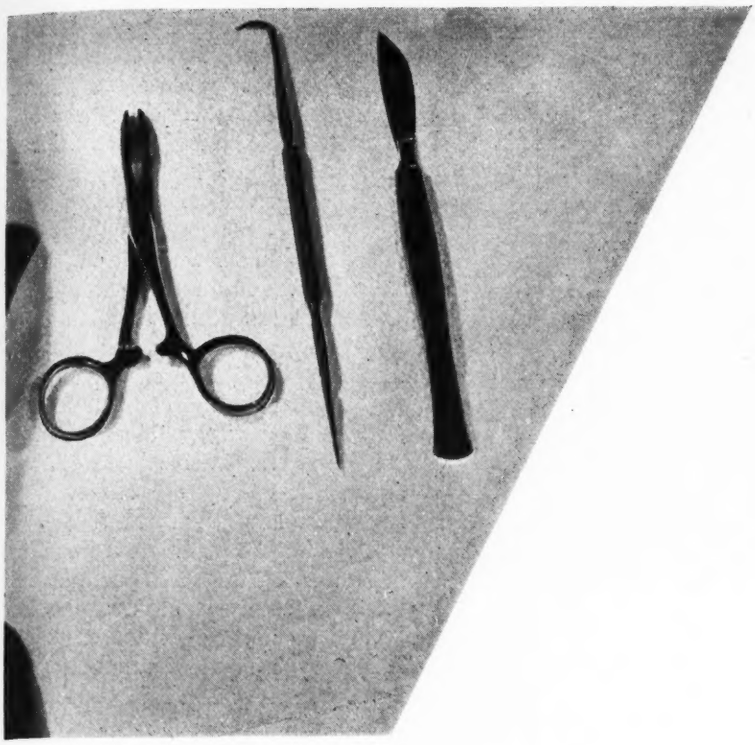

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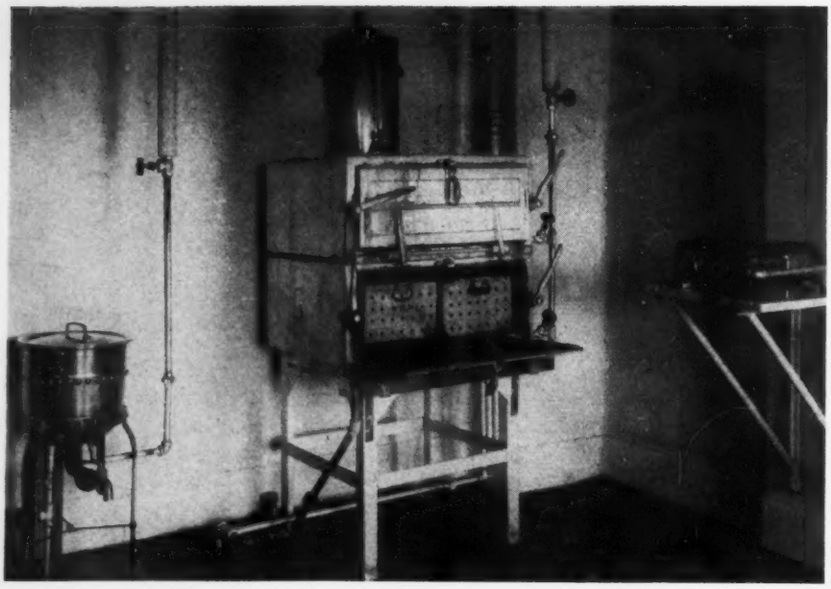

Two early types of sterilizers, which have, in most instances, been replaced by autoclaves and streamlined sterilizers of chromium and stainless steel.

quate conception of the importance of the time factor in the therapeutic application of x-rays.

Dr. Paul C. Hodges, chief of the division of roentgenology of the department of medicine of the University of Chicago, suggests the following as some of the needs in the x-ray equipment that should receive consideration during the coming years:

"An x-ray exposure meter to determine in advance the proper exposure for the skull, chest, extremity or other part of the particular patient is badly needed and presents no very serious theoretical difficulties. Stereoscopic fluoroscopy, long theoretically possible, should be developed to a practical stage now that small relatively powerful synchronous motors are available. Lacking only the serious application of existing engineering knowledge is the development of constant strength, constant temperature developing baths in which the developer is automatically renewed from time to time.

"The development of x-ray moving pictures, until they are feasible for routine application, presents many difficulties but perhaps these will be overcome. An automatic by-product of x-ray moving pictures will be the provision of a means for the rapid inexpensive routine raying of chests and perhaps other parts of the bodies of large groups of people such as nursing or medical students and hospital and clinic employes.

"An important, and at this writing a seemingly hopeless, problem is the development of a device for obtaining a pair of stereoscopic roentgenograms at a single closing of the circuit. Until this has been done, the roentgen ray examination of infants and small children will continue to be much less dependable than it is in the case of adults.

"Leaded rubber gloves, so essential to the safety of the fluoroscopist, have seen almost no improvement in the last twenty-five years. Some public spirited rubber manufacturer should try to develop a reasonably thin flexible molded leaded rubber glove to replace the heavy clumsy expensive gloves now worn by radiologists.

"The substitution of certain gases for oil in the insulation of x-ray machines and shockproof tube housings may bring about a great lightening and cheapening of such apparatus."

Hydrotherapy was just coming into use in the war years and this whirlpool bath was a part of a treatment for deep painful scars.

Laboratory Suite

Major developments in laboratory equipment during the last twenty-five years have been relatively few while changes and improvements in apparatus and technical methods already in use have been numerous.

One of the recent advances in laboratory equipment has been the development of the autotechnicon. This is a machine by which tissues are automatically fixed, dehydrated, cleared and impregnated and by which microslides may be deparaffinized and stained. It is electrically motivated and is set in action by a single movement of a switch. A special clock dial on the face of the machine enables the technician to fix the length of time during which the tissues are to remain immersed in the various fluids. The time may be varied from ten minutes to forty-eight hours. One or more pieces of tissue are placed in tissue receptacles of which about 30 can be contained in a carrier, which is transferred automatically from one fluid to the next. Besides helping to eliminate the element of technical error, this machine saves a great deal of the technician's time and provides a dependable twenty-four hour diagnostic service.

Another improvement in laboratory equipment is the lyophile apparatus. This is an apparatus for the preservation of biological products in which the material is frozen with dry ice in vacuo and dried without changing the character of the proteins. The product is vacuum sealed in the final container in which it is to be stored and distributed.

Among the materials that may be preserved are normal and convalescent human serums, animal antiserums and complement, miscellaneous proteins, enzymes, viruses and bacteria. Many of these substances

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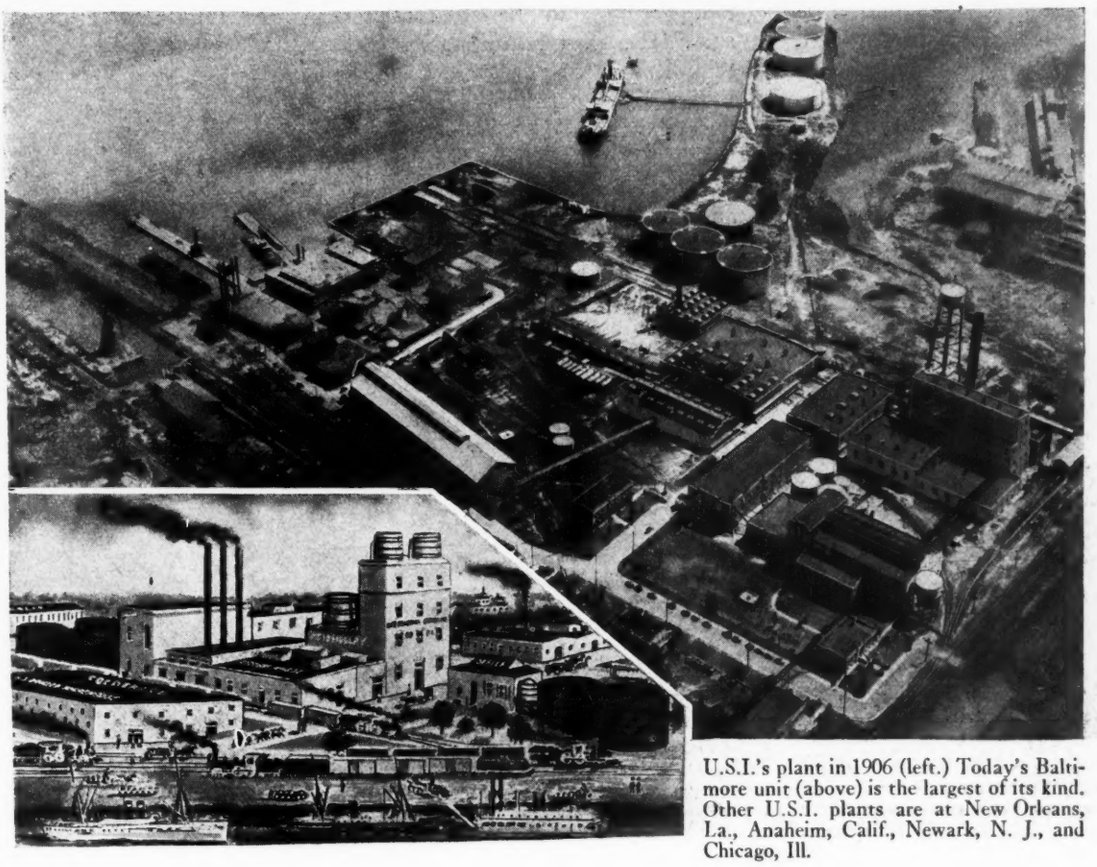

U.S.I.'s plant in 1906 (left.) Today's Baltimore unit (above) is the largest of its kind. Other U.S.I. plants are at New Orleans, La., Anaheim, Calif., Newark, N. J., and Chicago, Ill.

Congratulations* MODERN HOSPITAL *on 25 years of service to hospitals. Throughout these 25 years and for 78 years previous, the U. S. Industrial Alcohol Co. and James A. Webb & Son have kept pace with hospital progress by aggressive pioneering.

Carrying forward the leadership set by the House of Webb in 1835, U.S.I. was the first company formed after the passage of the Act of June 7, 1906 permitting tax-free Industrial and denatured Alcohol. Realizing the vital need for unlimited quantities of industrial alcohol, the founders of U.S.I. were dominant factors in the fight for tax-free alcohol for hospitals and manufacturing purposes.

To the science of alcohol chemistry, U.S.I. has contributed many significant developments including the perfection of absolute alcohol production on a commercial scale and the standardization of alcohol quality by careful control of the raw materials used for manufacture.

From one plant in 1906, U.S.I. facilities have grown to five modern plants located at strategic points serving industrial centers. Today, in each of these plants, U.S.I. chemists continue their efforts to meet tomorrow's needs for quality alcohol.

These are some of the reasons why American hospitals use more Webb's and U.S.I.-U.S.P. alcohols than any other single brand. Specify either of these brands when selecting alcohol for your operating room, pharmacy, laboratory, diet kitchen, in fact, for all departments requiring alcohol of the highest quality.

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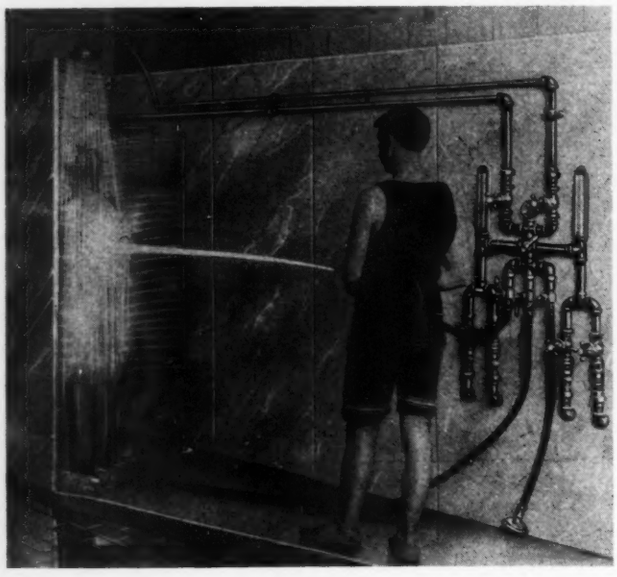
have been preserved for as long as ten months or more without detectable deterioration.

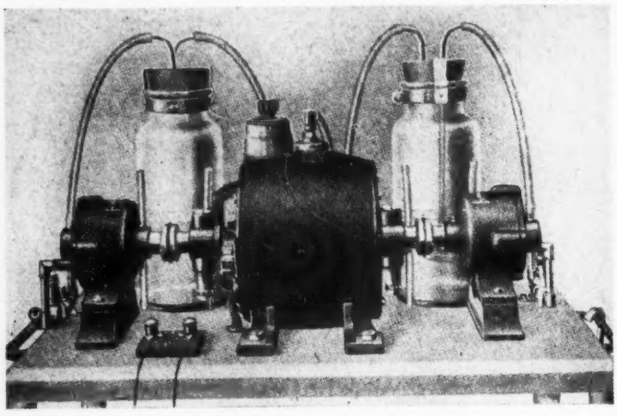
In the analysis of blood gases the Van Slyke apparatus is a relatively recent development and is now considered to be a necessary part of the equipment for the modern laboratory. Definite improvements have been made in the apparatus for determination of the hydrogen ion concentration (*p*H) in solutions by the electrical method. The photoelectric cell for hemoglobin determinations also represents a definite advancement in laboratory equipment and methods.

The electrocardiograph apparatus has advanced the diagnosis and treatment of heart disease and has become indispensable in the modern hospital. The present apparatus was devised by Einthoven, the Dutch physiologist, in 1903. The apparatus records the electric current generated with each heart beat and consists of a sensitive galvanometer, an electrically operated time-marker and a camera. The first instruments were large, cumbersome and stationary and required great skill in their operation, and the patient had to be taken to the laboratory for examination. A few years ago the first successful portable machine, which is simple and easy in operation, was invented by Doctor Williams of Columbia University.

The basal metabolism apparatus is of great value in diagnosis and in treatment, notably in thyroid disease. The modern basal metabolism apparatus consists of a tank of oxygen into which the patient breathes, and a graphic registration device. The carbon dioxide in the expired air is absorbed by soda lime and the volume of the oxygen utilized during the test in a given unit of time is measured. This figure is corrected as to sex, age, body surface, temperature and barometric pressure. The final figure is compared with known normal values and is expressed in percentage of average normal value.

The first apparatus was large, not easily transportable and required gas analysis. Modern apparatus is small, portable, requires no gas analysis, and calculations are readily made. The basal metabolism apparatus has become standard equipment in every modern hospital.





The ether vaporizer and suction apparatus (above) was an innovation 25 years ago. It had a valve to control the amount of air pressure. Left: Even as early as 1913 the needle spray, supplemented by a hose wielded by an attendant, was an important part of hydrotherapy.

Physical Therapy Suite

During the last quarter of a century, there have been many developments in the proper use of physical agents, principally heat, light, water and electric current, for the treatment of disease.

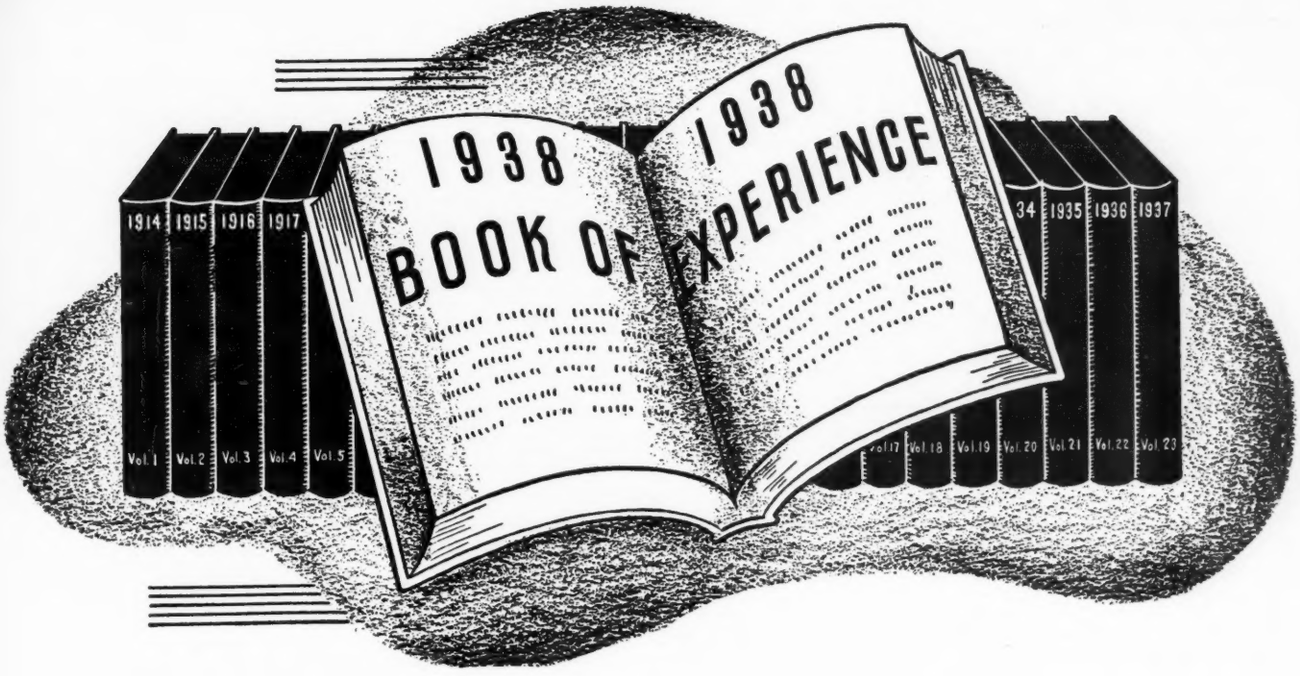
An important development is the use of water for the purpose of early assistive exercises in infantile paralysis, fractures, spastic paralysis and chronic arthritis. Underwater exercises may be used in three different types of pools: a large pool in which both the technician and the patient are in the water; a smaller pool built above the floor (the technician stands outside the pool and gives the patient the exercises in the water), and a small portable tank, about 2 feet deep and set up on legs, suitable for use in the hospital or home.

The patient may be transported from the hospital cart to either type of pool by an overhead crane. This method of exercise is helpful in allowing the patient to translate even minimal and scarcely appreciable muscle power into active and readily demonstrable motion. Every hospital physical therapy department should have some form of underwater exercise equipment.

The outstanding development in electrotherapy during the last quarter century is that of short wave diathermy, which, it is claimed, has specific biologic effects independent of the heat generated by the current, specific bactericidal effects and special selective thermal action, as well as a greater and more uniform generation of heat into the tissues. Most of these assumptions have not been substantiated by conclusive or critical experiments.

Short wave diathermy is the best method so far discovered to apply deep heat to human tissues. It is more efficient than the contact metal electrode diathermy and the danger of burns is much less. Of the two methods of short wave diathermy the electromagnetic field produces the more effective heating of live human tissues and is the more convenient to apply.

High frequency currents are also used in surgery. The three types of currents used are dehydrating, coagulating and cutting. The advance



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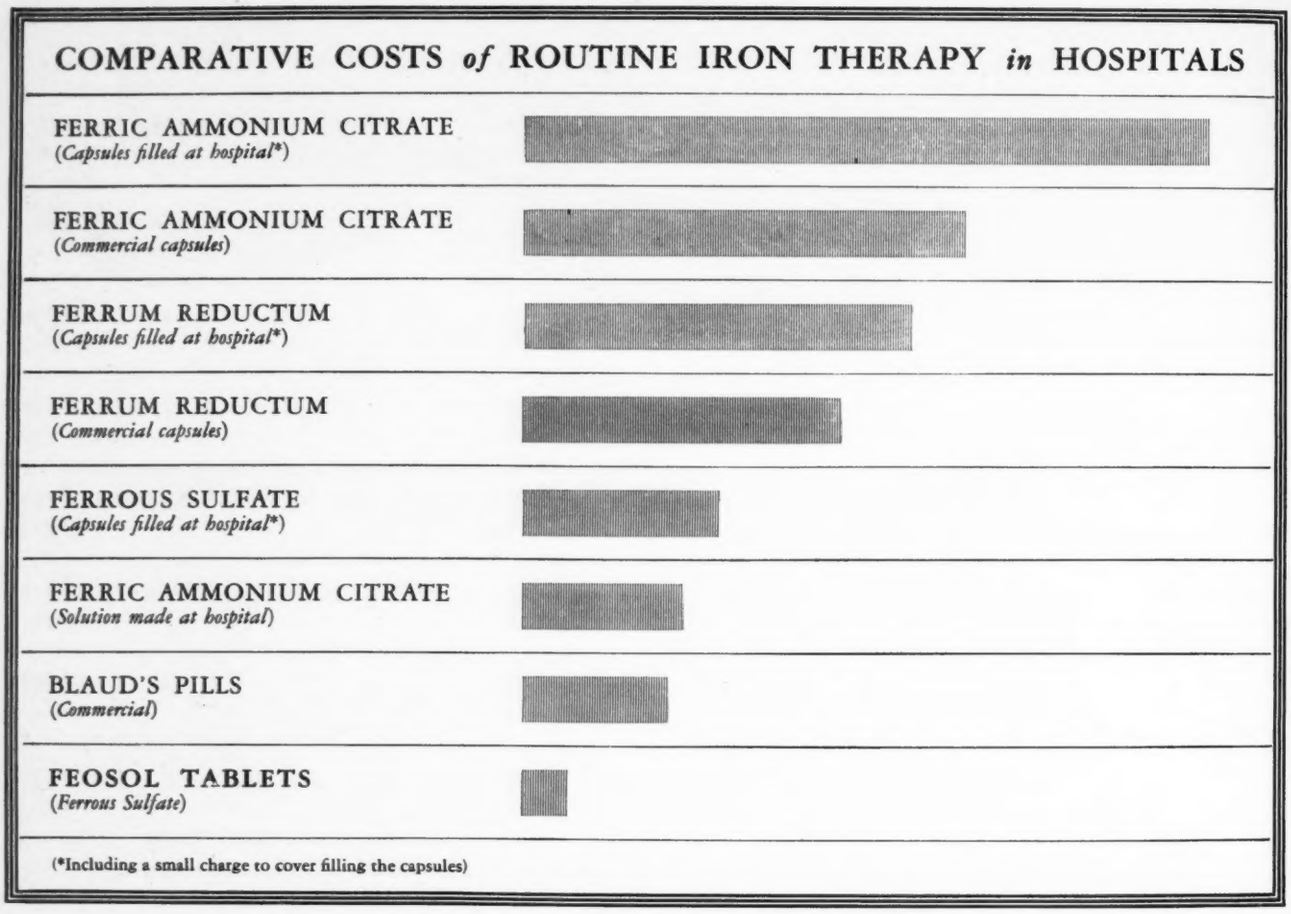

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An infra-red lamp used in physiotherapy in 1925. Short wave diathermy is now the accepted means for applying deep heat to the human tissues.

in electrosurgery is one of the outstanding events in electrotherapy during the last twenty-five years. Electrosurgery offers a distinct advantage over scalpel surgery in certain malignant lesions and in a limited number of other surgical conditions.

Most of the scientific data available on the subject of ultraviolet radiation has been developed during the last twenty-five years. This radiation has definite indications for the treatment of a small number of diseases, sufficient however to warrant every hospital having some form of ultraviolet generator in its department.

The council on physical therapy of the American Medical Association, which was established in 1925 to determine the value and merits of devices and methods used in physical therapy, has exercised a great influence on the development of good equipment and on the education of hospital administrators, physicians and the public in the proper use of physical agents.

Dr. John S. Coulter, chief of the department of physical therapy of Northwestern University Medical School, feels that the greatest problem to be solved in the field of physical therapy is the development of a plan to make physical agents available for hospitals of 100 beds or less. Too often the hospital buys apparatus and allows a nurse to operate it, expecting this to be a physical therapy department.

The council on physical therapy has often stated that 90 per cent of physical therapy is the proper use of heat, massage and exercise. This requires a technician graduated from a school approved by the American Medical Association. The problem for the small hospital is to obtain a technician properly trained in physical therapy, x-ray and laboratory work, so she can devote part of her time to each of these departments. At present there is no such instruction available.

Dietary

Twenty-five years ago any left-over space in the basement or elsewhere was all too often considered suitable for food preparation. In those days kitchen equipment was an assembly of heavy castings, cumbersome to operate, difficult to keep clean and, when set in the space allotted at that time, unattractive and insanitary. Twenty years ago dietitians organized and worked for a just recognition of their importance as an essential factor in the care of the patient. The time was opportune for this activity, since the decade of 1920 to 1930 saw money in great abundance, and many new institutions were erected and old ones refurbished.

Today the dietetic department usually occupies quarters requiring no apologies. The kitchens have been brought to practical locations, more often than not on the ground floor. Architects, dietitians and equipment engineers have been made aware of each other's existence and are brought together at the very outset of planning. The equipment manufacturers have made available food service equipment of design and materials of high order and efficiency.

In place of crude castings there is an employment of assemblies of electrically welded plates and shapes, insulated warmer sheathing and adjustable standards, all of streamlined design. Iron can now be rendered reasonably rust preventive by many inexpensive processes, and areas subject to heavy wear or brought into actual food contact can be accommodated by using noncorrosive metals. Ranges, bake ovens, fryers and steamers are now equipped with temperature controls, thermostats, pressurestats and various safety features, all working toward fuel economy and cool operation.

Efficient and reliable electrical range and bake oven equipment, full insulated against heat loss, is used by many hospitals, because of its simplicity of design, its ease of operation and cleaning and its dependable heating elements and temperature controls. The design of burners and combustion chambers in gas heated cooking equipment makes possible greater utilization of the Btu. value in the fuel flow, with minimized food shrinkage. Advancement has been made in the satisfactory employment of low pressure steam for cooking as compared with high pressure, offering reduced operating costs, less depreciation, greater degree of operating safety and measurably improved food results.

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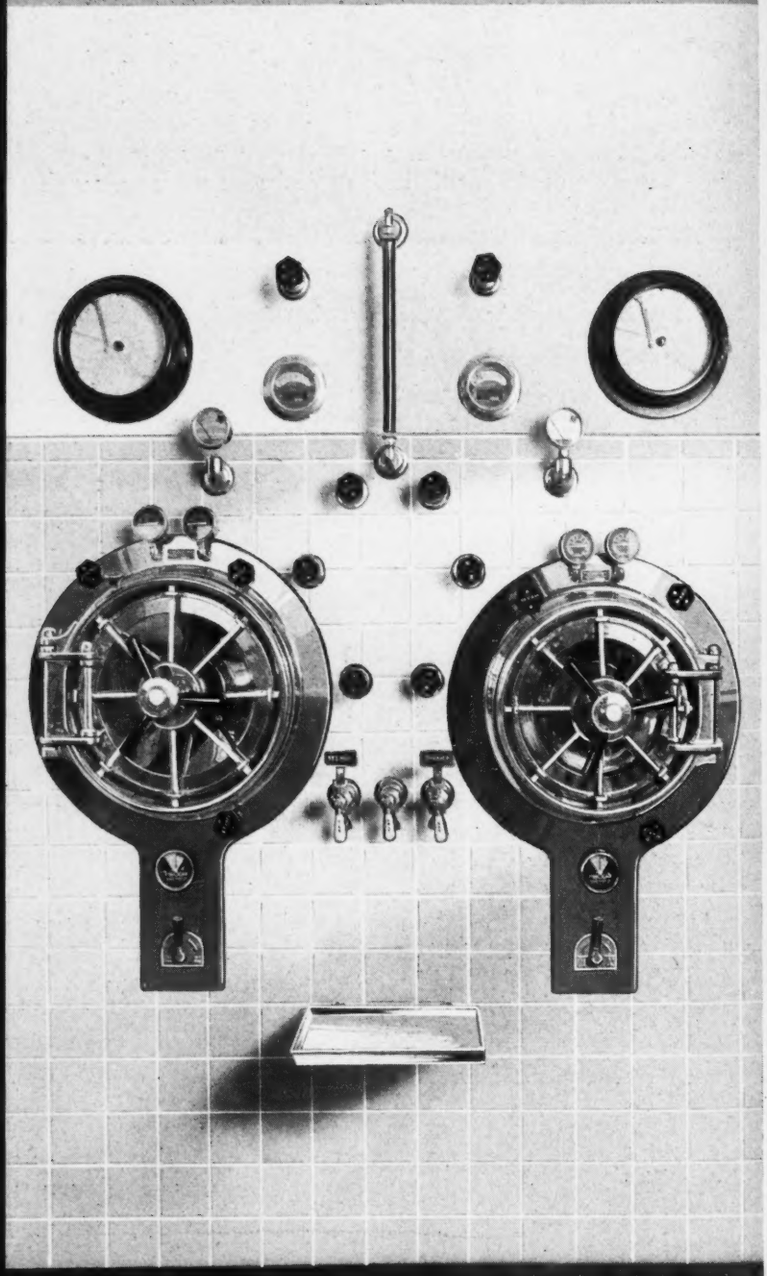

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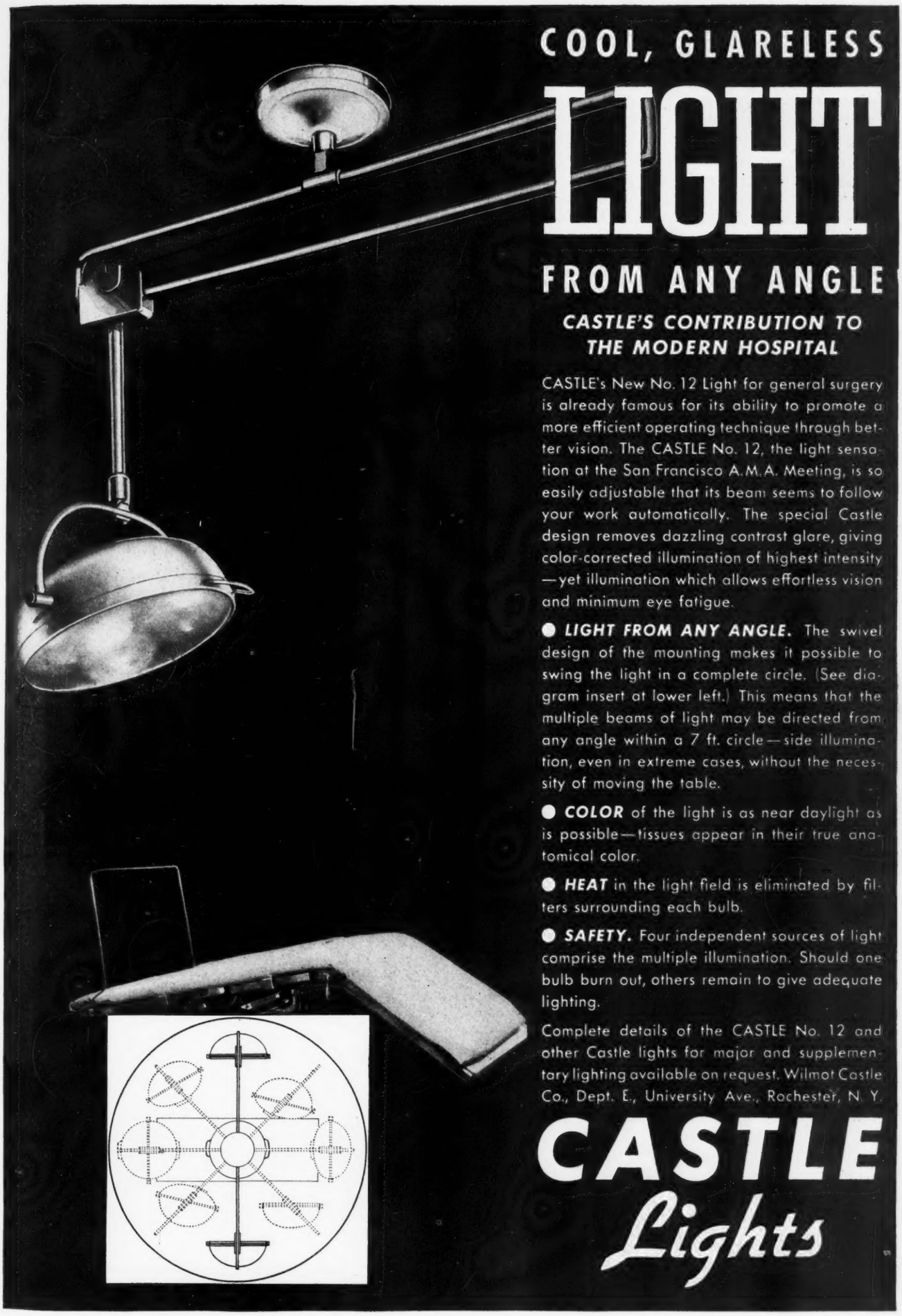

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CASTLE *Lights*

sity of reheating. These conveyors usually are equipped with a separate insulated unheated compartment to provide for other than hot foods.

A variety of coffee making devices has been developed that have several advantages over similar equipment that formerly was available. These devices are developed with a view to preserving the original flavor of the coffee. A number of the coffee makers are lined with heat-resisting glass and are so designed that the coffee does not come in contact with the metal parts of the equipment.

Hospitals are equipped with efficient electrically operated dishwashers which are indispensable in the modern institution.

Laundry

One of the principal changes in the laundry is the substitution of washing equipment constructed of noncorrosive metals for the wooden and porcelain hand washers of several years ago. The efficiency of extracting equipment, flat work ironers and dry tumblers has been increased and special equipment has been designed for the reclamation of gauze, blanket drying, stretching and combing. Special presses have been designed for the finishing of various types of uniforms and other articles of wearing apparel, greatly reducing the amount of hand work required.

Many hospitals have found it desirable to install water softeners. Hard water is not only damaging to linens but greatly increases soap consumption, and it is also responsible for the clogging of plumbing lines and fixtures. Soft water is desirable for bathing, for use in dishwashing and for use in heating coils and boilers, as well as in the laundry.

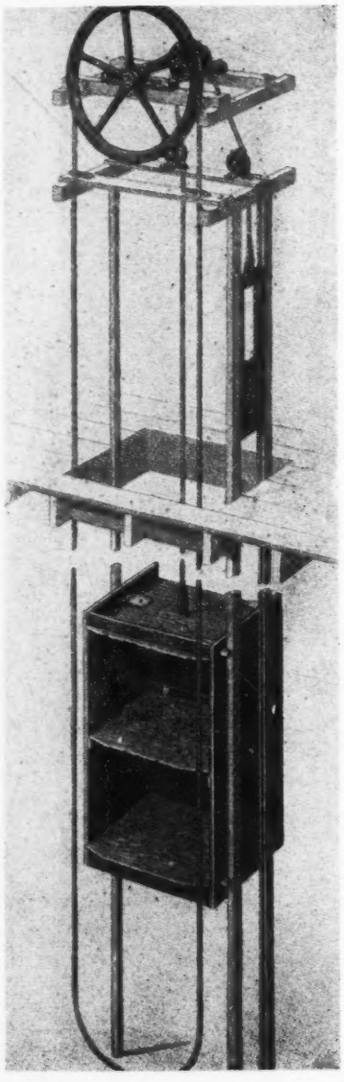
Linen chutes constructed of noncorrosive metals or glass lined metals are now extensively used. These chutes are so constructed that they may be flushed with running water and thereby maintained in a sanitary condition.

Office Equipment

The development of office machines and filing equipment during the last twenty-five years has been most pronounced; however, the acceptance of mechanical aids for office use in the hospital field seems to have been much slower than in commerce and industry. It has only been within the past few years that many hospital administrators have recognized the kinship of their office problems with those in other fields of endeavor.

Adding and calculating machines follow the basic principles of twenty-five years ago but their efficiency has been increased greatly by speed of operation and portability. Probably the most outstanding increase in efficiency has been in bookkeeping machines, which are now adaptable to many accounting uses other than the original accounts receivable posting work. General hospitals of 100 beds or more cannot afford to be without the service given by a properly planned machine bookkeeping system.

Electric tabulating equipment is now being used in the larger hospitals and offers great possibilities for group use by local councils and state hospital associations. Time recording devices are now being used by many hospitals, and new employment legislation and continued financial stress have resulted in many institutions maintaining a better control of employes' time through the use of such devices.



A hand power operated dumbwaiter equipped with an automatic brake as a safety feature.

Duplicating equipment at present offers a wide range of services by machines using stencil, hectograph, multigraph or offset lithograph methods. All these types of machines are being used in hospitals. By careful planning hospitals have found that literally dozens of different uses may be made of the addressing machine. Hospital administrators are now recognizing the cost of excessive fatigue, just as industry has, and are installing fatigue-eliminating furniture and lighting.

Improvements have been effected in filing devices and equipment. It is a far cry from the bulky heavy wooden vertical or flat filing units to the present highly engineered unit equipment.

Equipment of Tomorrow

From the developments of the last twenty-five years, it is reasonable to expect similar progress in the hospital equipment field in the coming years. What the next quarter century will bring forth is a matter of conjecture and will depend not only upon engineering research and manufacturing skill but upon the vision and interest of those who manage hospitals. There will be continued development of mechanical equipment that will result in increased efficiency in rendering hospital service, and many devices will be designed that will aid in the diagnosis and treatment of disease. There is likely to be greater use of air conditioning and acoustical treatment, especially in areas occupied by patients, and there will be continued efforts to furnish the hospital in such a way as to create a comfortable homelike atmosphere.

The author wishes to acknowledge the service of the following in the preparation of various sections of this article: John S. Coulter, M.D., Northwestern University Medical School, Chicago; James V. Class, auditor; H.M. Dixon, M.D., associate pathologist, and Harold Feil, M.D., associate physician, University Hospitals, Cleveland; Paul C. Hodges, M.D., Department of Medicine, University of Chicago, and Owen T. Webber, consultant on food service equipment, New York.

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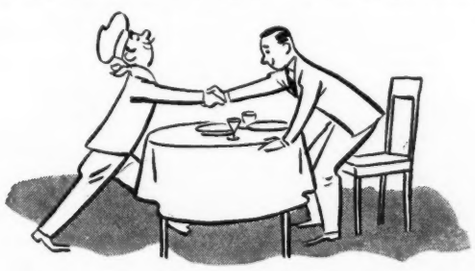

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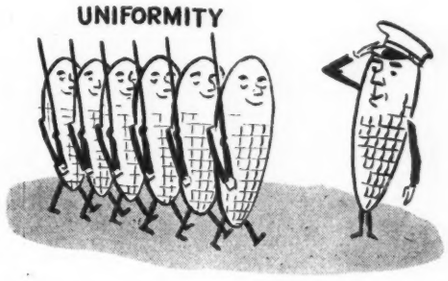

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Methods That Set the Pattern

AMY FAHLGREN

ALONG two separate avenues the activities of the hospital housekeeper have advanced immeasurably in the last 25 years. The first of these is the increasing importance of household asepsis. The second is the recognition given to the psychologic factor in healing and its application by means of color and furnishings to produce a homelike and friendly atmosphere.

Judged by today's standards, the hospital of yesterday would seem an insanitary place. Hospitals no longer fumigate and the hated "hospital smell" is or should be a thing of the past. Soap and water cleanliness and mild disinfectants have displaced the use of gases, such as sulphur dioxide and formaldehyde. All this has meant a change in housekeeper's routine. Meanwhile labor-saving devices, such as floor and wall scrubbing machines, have shortened the time for cleaning and reduced the number of workers.

Yet, fundamentally, a major part of the housekeeper's job remains the same: the achieving of soap and water cleanliness.

For example, the procedure in cleaning for a check-out room 25 years ago, as reported by Mary A. Jamieson, R.N., superintendent of Grant Hospital, Columbus, Ohio, included the washing of walls in all rooms that had been occupied more than one week. She continues:

"When the patient leaves the room, the nurse takes care of all linen, sees that every part of the work that belongs to the nursing department is done. Then the head of the floor notifies the housekeeper that the room is empty.

"The maids follow the wall washers and their duties are to wash the bed, the wardrobe and the furniture, make the bed, change the window curtains, dust and put on clean stand covers."

Considerable confusion prevailed in 1913 regarding the duties of the housekeeper. Superintendents, then as now, were inclined to permit housekeepers, or matrons, as they were then called, to undertake duties to whatever extent their capabilities indicated. This fact is partially responsible for the lack of uniformity in the duties of the housekeeper.

A query as to the duties of the housekeeper brought this reply from an administrator in 1913:

"In most hospitals the matron is expected to employ and discharge all the common help, except those in the scientific departments, which include the nursing department.

"She is expected to direct the work of all the cleaning people in the house, including the wards and private rooms, and to handle the work in the service rooms, except the actual feeding of patients. She is to look after the linens and the cotton goods and laundry work; to direct the collection and counting of soiled linens and get them to the laundry; to deliver them to the floors and to operate the sewing room."

Sorting sheets in a linen room, 1915. Above: The cleaning girls.

At Johns Hopkins Hospital, Baltimore, the matron was responsible for the cleaning of the hospital, the purchase of all dry goods, china, glass, household furnishings, soap and such furniture as was necessary in her department. She also engaged the maids and directed the work of a staff of 150 employes. Thus housekeepers began to set the pattern of work later to become standard.

Loss of linen on the floors always has been a problem and devious and severe were some of the methods for preventing it. One administrator advised: "The only way to prevent undue loss is to count the linen constantly, holding the person receiving it responsible for its loss, and to have distinctive patterns or styles for special purposes."

Sporadic attempts at linen control were tried, such as yearly inventory and a weekly exchange for the wards and other departments.

Dr. S. S. Goldwater, in discussing accommodations for private patients, sounded a warning regarding the arrangements for distributing linens. He advocated a spacious linen closet on each floor, controlled by a nurse, and a central linen room, under the control of the head nurse or housekeeper, in which a reserve supply could be kept—innovations that were not to be generally adopted until 25 years later.

But important events were to affect the operation of other divisions

RECENT ADVANCES IN THE SCIENCE OF NUTRITION

I. THE ROLE OF RIBOFLAVIN IN HUMAN NUTRITION

● In 1933, a series of articles on the vitamins was published, each article written by an authority in the field of nutrition. These papers served to summarize existing knowledge concerning these essential factors. During 1938 a similar series of articles has been issued. Comparison of related papers in these two series will indicate the most important advances in the science of nutrition which have been made in the course of the past five or six years.

In the first series of articles mentioned above, only two of the better known members of the old vitamin B complex received extended discussion (1). The more recent series, however, is characterized by the inclusion of a number of papers on riboflavin which, since 1932, has assumed a new significance in human nutrition (2). As compared with other factors with which it is often associated in nature, the rise of riboflavin to importance in human nutrition is somewhat anomalous.

For example, the effects upon humans of severe dietary deprivation of vitamin B_1 and the P-P factor are well known, in fact, such effects in themselves afford proof of the indispensable nature of these factors. While riboflavin is apparently concerned in cellular oxidation processes of mammals, the specific effect on humans of riboflavin deficiency is not known. Nevertheless, from the weight of evidence accumulated during the last five years, riboflavin is generally accepted as important in human nutrition. Authoritative opinion concerning riboflavin has been succinctly expressed as follows:

> "The fact that we do not know any specific human disease due to shortage of riboflavin is entirely compatible with the view that this substance is important in human nutrition. A detailed discussion of reasons for believing that riboflavin plays a role in the life process of the human as of other species would probably seem superfluous to a majority of readers at this date, and to a still larger majority in the future. Suffice it to point out that our species has evolved in the direction not of shortening the list of things it needs but of lengthening the list of things it can use to advantage." (2c)

Chemically, riboflavin is described as 6, 7 dimethyl-9 (d-l' ribityl) iso-alloxazine; a yellow-green, heat-stable pigment enjoying wide distribution in the plant and animal kingdoms. Many foods, therefore, of both plant and animal origin supply valuable amounts of this essential factor, specifically, fruits, vegetables, particularly the leafy pigmented types, and animal products such as milk and dairy products, meats, liver, and fish. It may, perhaps, be too early to estimate the daily human requirement for riboflavin. However, one rather liberal recommendation lists 600 units* as required daily by older children and adults; the estimated riboflavin requirement for younger children is somewhat less (2c).

In view of the above facts, attainment of an adequate intake of riboflavin would appear to be best insured by a varied dietary regime which includes the so-called "protective" foods. In the formulation of such diets, commercially canned foods may be particularly valuable. The older "vitamin G" assays —which are now known to measure principally the riboflavin contents of foods—indicate that modern canning procedures are without significant effect upon riboflavin. In addition, many foods valued for their contribution of this factor are canned commercially and hence are conveniently available at all seasons on practically every American market. Therefore commercially canned foods may be freely used in arranging such protective diets and they should materially assist in providing an adequate supply of this newly recognized dietary essential, riboflavin.

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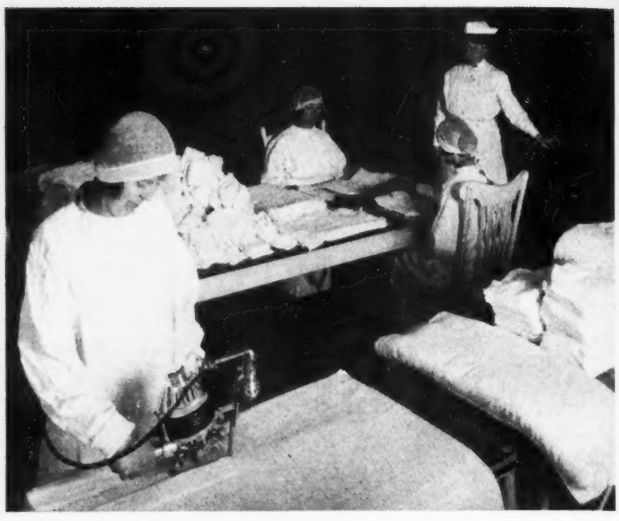
*Bourquin-Sherman.

1. 1932. J. Amer. Med. Assn. 98, 2201 and 2283
   1932. Ibid. 99, 26 and 121.

2a. 1938. J. Amer. Med. Assn. 110, 1105.
   b. 1938. Ibid. 110, 1188.
   c. 1938 Ibid. 110, 1278.

This is the fortieth in a series of monthly articles, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research. We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.



Maids check off articles in the sewing room (left). Work was speeded with an automatic cutter.

of the housekeeping department. Efficiency experts made their appearance in industry and inevitably their influence was reflected in housekeeping routine. One of the smaller hospitals established a "systematic and orderly schedule of work, which shall cover all departments and to which there must be strict adherence."

"This schedule has been carefully planned and arranged by the dietitian-housekeeper to avoid overlapping of work," wrote the superintendent. "Every employe in the help department has a typewritten list of his or her work, with its required arrangement, which is posted."

Like housewives, hospital housekeepers always have been expected to stretch their budgets beyond all reasonable limits. The year in which leading citizens had just begun to worry about their income taxes saw many small economies put into effect. One in vogue at Johns Hopkins Hospital was the making of soap from the fat collected in the hospital kitchen and butcher's shop. The formula for soap making was:

Clean white tallow or cooked grease	35 pounds
Concentrated lye	12 pounds
Water	40 gallons

This amount made 160 gallons of soft soap and supplemented the soap chips used in the hospital cleaning.

About this time housekeepers and administrators began to be concerned about the appearance of employes and to realize that their untidy appearance might have an unwholesome effect on visitors and patients.

"Why not think about putting your housemen and maids in uniform?" asks one progressive superintendent. "Denim or khaki costs little," he continues, "and it will mean an improvement over the slovenly, dirty odds and ends commonly worn. If there is a place where order and neatness should prevail, it is in the hospital." Recommended were overalls and jumpers for the men and "full aprons, to the shoe tops," for the women.

But women housekeepers did not entirely dominate the field. Occasionally men were employed in this capacity, and bitter as it was for the women to admit it, the men, on the whole, did make good housekeepers. An example is a 200 bed New York hospital. The administrator hired a man housekeeper, a daring act, indeed, in those days when housekeeping still was a strictly feminine pursuit.

Apparently the arrangement was satisfactory, for this report was received from the assistant superintendent, Dr. J. J. Golub: "It was gratifying to observe that after an experimental period of six months he is entirely successful in his work.

"Wards, equipment, corridors and hidden corners are cleaner than ever. A better system prevails in all his subdepartments."

The influence of aseptic technic and labor-saving devices on the progress of housekeeping cannot be discounted, wrote Dr. C. W. Munger, administrator of Grasslands Hospital, Valhalla, N. Y., at a somewhat later date.

"Mechanical and labor-saving devices have made a valuable contribution to the housekeeper's efficiency within the last twenty years," he observed. "Less help is needed.

"In spite of the progress outlined there is still need for much improvement. The evolution of hospital housekeeping has been by no means as laudable as the progress made in the surgical and nursing fields. Hospitals should pay still more attention to housekeeping, particularly in the systemization of methods."

In recent years work of the department has been greatly accelerated through establishment of work schedules and time cost studies. The housekeeper has become, in many instances, an interior decorator. She has achieved a professional status.

One of the housekeeper's big jobs today is to achieve a friendly atmosphere in the hospital, which will, in turn, create a favorable impression on the public. This she does in training employes to be courteous and helpful, in supplying the personal touches that help to give the hospital individuality. She still must supervise cleaning, effect economies, plan her work schedules to conform with present day working hours, have a knowledge of chemistry, be a psychologist and be adept at handling personnel problems.

Her job has expanded beyond the narrow limits set in 1913. Housekeeping has become a big business. Today the professional attitude of housekeepers is reflected in the educational programs of the organizations to which she belongs, such as the National Executive Housekeepers Association. She now attends courses in institutional management at leading universities and discusses her problems at hospital meetings.

Why not be **HONEST** *about it?*

Research in the vitamin field during the past 25 years has brought to light some interesting data:

1. The vitamins are now known to exist as complexes, groups or families of related and similar organic principles.

To rate any vitamin complex in terms of any one of its fractions is just as illogical as to set up as a standard for the carbohydrate component of a diet a specified quantity of pure cane sugar. (It is just as unscientific to purify vitamins as food components as to denature carbohydrates. They cease to be natural foods, and become drugs, the effects of which may be quite at variance with that of the original complex, and of a narrower range of action.)

2. The different factors of a complex have quite a different value in serving as the vitamin for different species.

To set up as a standard unit a given quantity of a pure vitamin, therefore, can be as deceiving as to specify for the carbohydrate component of a diet a given quantity of pure cellulose. (Cellulose is carbohydrate only for such species of test animals as rabbits, goats, cows and horses. Its value is zero in human nutrition.)

These statements are not idle arguments, but are **BASIC LAWS OF NUTRITION.** The fetish of "scientific standardization" has been the downfall of many makers of vitamin concentrates.

VITAMIN A Vitamin A was said to be standardizable in terms of carotene. Now we find that many patients show an A deficiency because they cannot convert carotene to Vitamin A.*
Vitamin A was said to be standardizable in rat units. Now we find that in equal amounts according to rat units, Vitamin A from spinach is **TEN TIMES** as effective in the human as the Vitamin A from fish oil.*

VITAMIN B Vitamin B was said to be standardizable in terms of pure "thiamin". Now we know that the Vitamin B complex contains **FOURTEEN** known components besides thiamin.*

VITAMIN C Vitamin C was said to be standardizable in terms of "Ascorbic Acid". After its discoverer received the Nobel prize for his work, he found that **IT LACKS THE ANTIHEMORRHAGIC FACTOR,** the deficiency of which is the cause of the major symptoms of scurvy.

VITAMIN D Vitamin D was standardized in terms of rat units, with the later finding that **THE RAT VITAMIN WAS NOT VITAMIN D AT ALL,*** and that all the irradiated materials sold up to that point contained a new substance having toxic properties (toxisterol).

VITAMIN E Vitamin E was not recognized as necessary for the human until of late, but it is now known to be essential, and in purified forms **LOSES ITS POTENCY,** being most effective if the "complex" is not taken apart.*

VITAMIN G Vitamin G investigations have brought to light a chemically different Vitamin **"G" FOR EACH SPECIES TESTED** in one series of experiments.*

The Vitamin Products Company has consistently followed the policy of recognizing clinical tests as the only practical criterion of merit. We believe our reputation for the definite results producible with V. P. Concentrates is a far better guide to prospective users and prescribers than any other attempts at "scientific" measurements.

We are as desirous as anyone of finding a more accurate and effective means of standardization of Vitamin Products, but until such means are available "why not be honest about it?"

MH 9-38

*Copies of references supplied on request.

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Then, Now and Next

LULU G. GRAVES

WHEN the first issue of The MODERN HOSPITAL came off the press, dietetics had not been recognized as a science and the terms "nutrition" and "diet therapy" were unknown. Relatively few hospitals were employing a college trained dietitian and in these few her sole function was the administration of a small diet kitchen and the teaching of dietetics to nurses. She occupied an obscure—one might say, unrecognized—place in the hospital.

In those days the hospital kitchen usually was located in the basement or in any place not desirable for other purposes. It was frequently ill lighted and poorly ventilated and rarely was thought given to the workers' comfort or convenience. It was a place in which little interest was shown by the hospital authorities or by the employes of the department and it seldom was seen by anyone who was not compelled to go there.

The menu was monotonous and hospital food was in disrepute generally. In the majority of institutions, the reputation was deserved. Regretfully, we must admit that the charge still holds in some hospitals, although food that is of inferior quality or is poorly prepared or is lacking in variety is inexcusable today. Through present methods of production and merchandising, food producers are giving us a wide choice of foods of good quality in prices to fit any budget.

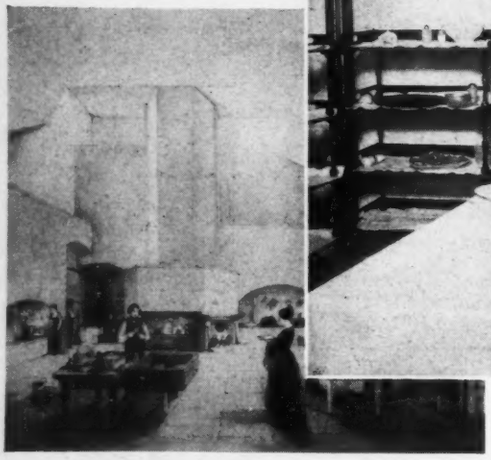
In the larger markets fresh foods of every kind are obtainable throughout the year. Canned foods and dried foods of high nutritive value, adapted to many ways of serving, are available in every market. Quick frozen foods are being introduced rapidly into an increasing number of markets.

This newest method of preservation is applied to such perishable foods as fruits, vegetables, seafoods, poultry and meat in small cuts. Not all varieties of fruits and vegetables can be quick frozen satisfactorily; therefore, those that are so treated are grown especially for this purpose under controlled conditions to ensure a good product with uniform maturity. For these products it is necessary for the proper temperature of cars and trucks to be maintained. Hence, quick frozen foods have brought about changes in transportation from which other foods have benefited.

Modern refrigeration and cooking facilities enable the dietitian to care

The axiom concerning too many cooks did not apply in this first diet kitchen in which food was prepared under the watchful eye of the new dietitian. (Circa 1902.)

In 1847 culinary skill depended on footwork no less than on ability to whip up a tasty dish, as this "new" kitchen attests.



Left: Being a diet nurse was no sinecure in the days when diet therapy often was regarded with downright suspicion.

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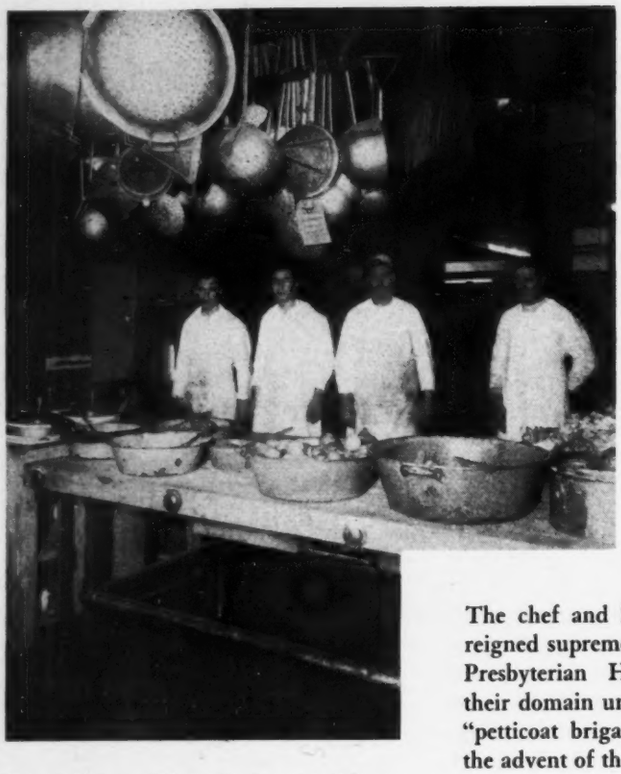
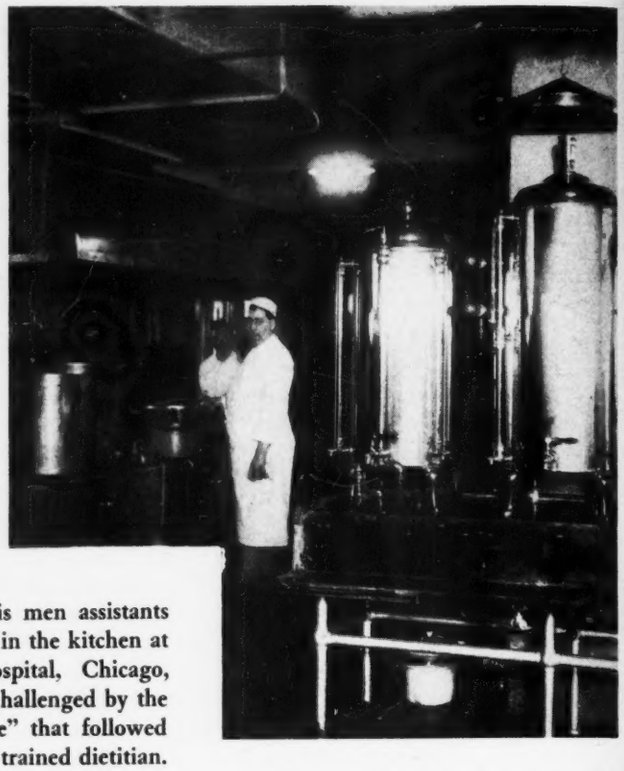




The chef and his men assistants reigned supreme in the kitchen at Presbyterian Hospital, Chicago, their domain unchallenged by the "petticoat brigade" that followed the advent of the trained dietitian.

for and to utilize food materials in such a way that they retain the maximum of their nutritive elements. The kind of equipment and the convenience of its arrangement have much to do with the actual cooking, with the menus and with the attractiveness of the food served.

Few hospital executives realize the amount of money expended year after year for misapplied time and labor resulting from faulty arrangement of rooms or appliances or both. Equipment built for utility, durability and ease of operation and repair and a layout that conserves time and effort for the staff enable the dietitian to delegate more responsibility to her helpers and give her greater freedom from routine matters. Therefore, she is able to shift the emphasis from the mechanics of the department to its functions in the conservation of health and the correction of disease and its educational obligations and opportunities.

Thus, in twenty-five years the hospital kitchen has developed into a well-equipped laboratory, an example of capable and effective work and a center of interest to administration, nursing department and medical department because of the closely allied interests of all of them.

Unfortunately, the percentage of hospitals having this excellent dietary service is not high although a large percentage of hospitals have a good dietary service. That it is an asset is universally conceded. Hospitals lacking in this respect realize that they lose in service to their patients, in morale of their personnel, in pride in their institution and in influence in the community. These intangibles are induced by better trained dietitians, by more cooperation among the departments in the organization and by advances in the science of nutrition and diet therapy.

The woman with home economics training who chose to go into hospital dietetics a quarter of a century ago was an explorer. She had little knowledge of what was before her and no way of finding out except to go ahead. Hospital life was foreign to her previous experience. College courses in home economics gave her some fundamental facts but she had to learn where and how to use them. Food was good or bad and that was about all, for most persons. Diabetes and a few liver ailments were the only diseases for which diet was considered important. Her co-workers in the hospital usually accepted her more or less graciously as a necessary nuisance and outside of her profession she was thought of as a fanatic.

The young woman of 1938 who seeks to become a dietitian has a background of four years in college where some of the subjects are specifically adapted to medical dietetics or hospital administration or both. She has the benefit of a year or more internship in a hospital and she has a wealth of opportunity to learn, either by visiting or reading, what is being done in hospital dietary departments in this and other countries.

The field for future achievement is unlimited. The hospital dietitian is a member of a recognized profession; nutrition, dietetics and diet therapy are branches of a recognized science, and she is a co-worker with the physician, biochemist, dentist, endocrinologist and psychiatrist.

The American Dietetic Association, with its 3700 enthusiastic members, with state associations in the majority of states and with local city or community associations, affords a medium for exchange of ideas. Its journal keeps members informed on the activities of all of these groups and on what is being done in allied professions. Mrs. Mary Pascoe Huddleson's occupancy of the "editor's easy chair" gives assurance that its helpfulness will be sustained.

The science of nutrition and diet therapy has become sufficiently vital

LIBBY'S *SELECTED SLICES* OF HAWAIIAN PINEAPPLE

FOR GENERAL AND HIGH CALORIC DIETS

. . . a new dessert that's easy!

●Dishes like this certainly win an enviable reputation for a hospital's dietetic department, and they take so little extra care. Just cutting the cake into circles . . . just making sure the pineapple is *Libby's* . . . assure a dessert that looks and tastes like something special.

Of course, any dish gains in distinction when it's made with *Libby's* Pineapple. In Libby's you get *selected slices* exclusively . . . just the finest part of the field-ripened Hawaiian fruit. These Libby slices are distinctively tangy and full-flavored; tender in texture; beautifully uniform in color and shape. Yet Libby's costs you no more than ordinary kinds!

To make this delicious dessert, which is high in vitamins and minerals as well as in appetite-appeal, cut thin chocolate cake in circles the size of the pineapple, put together with whipped cream between and on top, and cover with Libby's Hawaiian Pineapple. Mint paste patties provide an unessential but attractive garnish.

Have you tasted Libby's?

100 Fine Foods, including Fruits and Fruit Juices, Vegetables, Tomato Juice, Pickles, Condiments, Canned Meats, Evaporated Milk, and Alaska Salmon. Each comes in regular and special sizes for institutions. In addition, Libby packs Homogenized Foods for Babies.

to engage the attention of a host of investigators with a wide diversity of interests. Whatever the purpose of their study, it is, almost without exception, based upon ways of improving general nutrition or on better methods of treating disease.

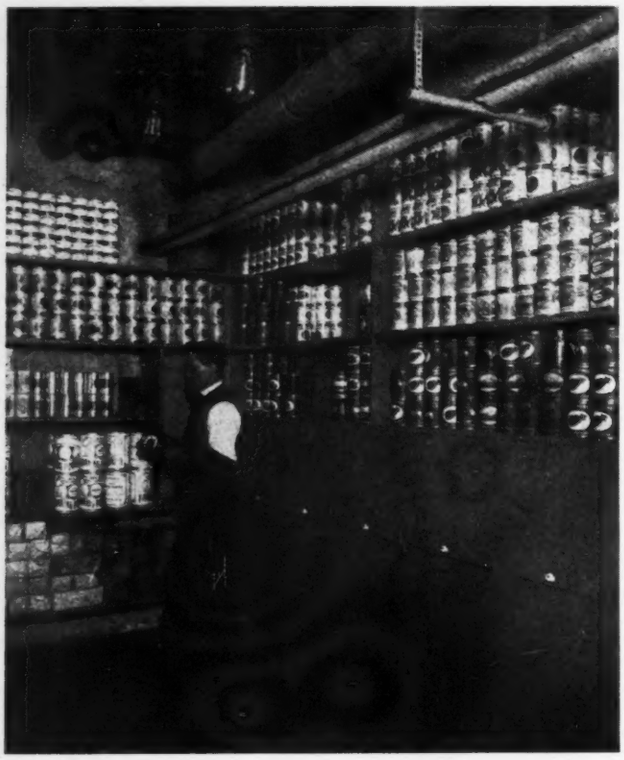
Some established factors are: an awakened interest in health promotion; the importance of good nutrition to health; a better understanding of the ways in which food helps or hinders good nutrition; a greater knowledge of metabolic diseases and their treatment.

Food allergies, one of the latest findings to interest the student of nutrition, opens a new field of wide scope. One authority recently said that after the allergy diagnosis is made the dietitian's part in the treatment is of more importance than the doctor's. The relations of food to vision and to hearing are other recent disclosures.

Diet therapy and the dietitian are subjects for discussion in professional publications almost every month, and frequently from the lecture platform. Some of the points repeated most frequently by our contemporaries may well be emphasized. A few of them are:

Dietetics should be made a living vital science. The physician should be well informed on the principles of dietetics and how to apply them practically to his work, particularly the general practitioner. A first step toward this goal is the establishment of compulsory courses in dietetics in the medical schools. When a physician prescribes a drug he knows the dosage and the general pharmacologic effect of that drug in the body of the patient. He should have as sound an understanding of his diet orders and the reasons for them as for his prescription for drugs.

The instruction in dietetics to nurses is more or less standardized in each state and on the whole is good, though its value is determined largely by the ability of the instructor. Few medical schools have a course in this subject that gives the medical student an intelligent understanding of it. Since physicians realize this and many of them concur in the opinion expressed above, this may be remedied.



Quantity buying in order to obtain better prices was the rule 25 years ago, as now. The row of bins at the right are for staples, such as meal, rice and tapioca.

In a hospital in which all departments are well coordinated the student acquires practical knowledge. The intern, nurse and dietitian, working together, educate the patient and at the same time further their own education.

One reason that food and diet therapy is not taken more seriously in many hospitals is that the superintendent is not convinced of its importance. If he does not regard the dietitian as one who, perhaps more than any other department head, can make or break the health and the morale of the hospital family, he should be taught so to regard her.

Probably the lack of clearly defined precincts of responsibility and a recognition of authority in each are the causes of most problems between departments. In a hospital in which such a system exists, these problems are easily solved. The organization is determined by the superintendent. Every hospital makes an earnest effort to have the most experienced and best trained physicians and surgeons in charge and an adequate nursing organization. Equally great care not always is exercised in selecting a director of dietetics.

The first requisite of a dietitian is that she should like her job and be loyal to her institution. Besides the liberal background of education outlined above, the director of the dietary department should possess special preparation and experience along administrative lines. Good will toward her department is gauged by the extent to which she maintains poise, dignity, a cheerful attitude and a neat appearance.

The hospital with a good dietary department together with the clinical material in the wards and out-patient department has a first class instrument for searching new fields and finding the solution to new problems as they arise. Through its doctors, dietitians and nurses it can direct the nonprofessional seeker for information on nutrition and health and help him discriminate between the authentic and the false.

Dr. Howard W. Odum of the institute of research in social science,

From the small two-story house shown above, H. J. Heinz Co. has developed into one of the greatest food producers on earth.

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A corner of the tearoom at Michael Reese Hospital, Chicago. Modern decoration combines Chinese red leather seats along the wall with chromium chairs upholstered in sage green leather. Sage green also appears in the table tops and the linoleum floor and contrasts with walls in yellow and silver.

University of North Carolina, said at the last annual meeting of the American Dietetic Association: "We have the almost unlimited possibilities of a great region which, through reconstructed agricultural programs, farm chemurgic activities, the implementation and education of great state, regional and national agencies, may make one of the largest contributions to the national wealth and welfare of any region. In particular, we need fundamental research to explore the relation between diet and creative effort in the South, between diet and health and vitality and between diet and deficiencies of agricultural production, wealth and welfare."

In the report of the Health Organization of the League of Nations we find: "Production, distribution and consumption have hitherto been considered mainly as economic problems without sufficient regard to their effect on public health, but the effect of the economic depression has directed attention to the gap which almost everywhere exists between dietary needs as determined by physiology and the means of satisfying them under existing conditions. The general problem of nutrition as it presents itself today is that of harmonizing economic and public health development."

Together with these intriguing prospects a note of warning creeps in. C. W. Munger, M.D., superintendent of St. Luke's Hospital, New York, is in a position to know, when he says: "Hospitals should lead in applying the knowledge acquired in nutrition to the development of a sturdier, more effective race. Only through departments headed by especially trained physicians or by superdietitians can these scientific advances be fully utilized for patients and personnel."

In 1913 employes' dining rooms often were tucked away in a dark corner of the basement. Today most hospitals maintain cafeterias that are bright and cheerful.

This ideal is possible to a dietitian with vision if the hospital in which she is employed wishes to profit by her ability and enables her to utilize it to the fullest. Industry has learned to conserve the skill of its specialists, and when hospitals adopt this plan and provide a sufficient staff to look after the details, we shall have a more adequate supply of superdietitians.

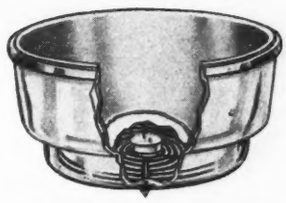
Gilbert Daldorf, M.D., writes: "Dietitians have too narrow a viewpoint. The nursing profession lost dietetics because it did not develop rapidly enough to do the job . . . possibly a class of nutritional workers will supersede dietitians."

These warnings are timely and should be heeded.

For several years past great impetus has been given to movements in health education and nutrition has been a major factor. Home relief has brought an unprecedented demand for instruction in foods, diets and budgets. National, state and city social welfare centers and other agencies have made great strides in meeting this demand. In some instances dietitians have had a part in the plan, either individually or as an association. With all that is being done, there is still a nutritional problem and these several activities will go on, probably at an accelerated pace. Logically, the dietitian should play one of the leading rôles in this development.

The alert dietitian realizes the possibilities and is fitting herself to be of greater help in this group. To her, every new ailment in which diet therapy is found to be significant is an inspiration and to follow it is a duty and a pleasure. Great credit is due to the many hospitals that have a good dietary service and to the dietitians who are directing these departments. However, in some 7000 hospitals in this country the number is all too few. Will the dietitians of today with a greatly improved training and background be instrumental in multiplying the number?

A HOSPITAL DEVELOPMENT for Coffee Making



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Finished brew cannot, at any time, come in contact with grounds.

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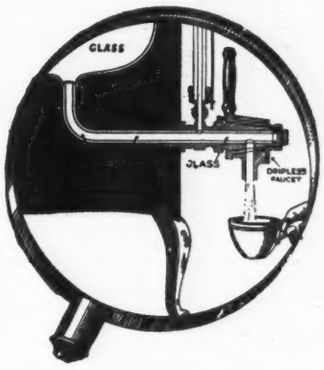

Cross section showing Pyrex liner, Pyrex dispensing route and Pyrex lined faucet.

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in sizes to fit every need from diet-kitchen to largest institutional requirements

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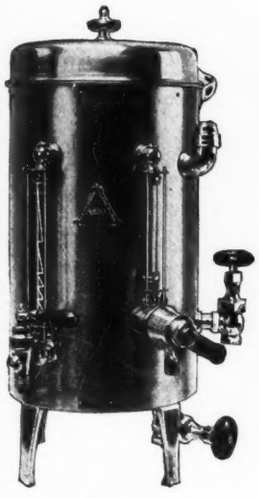

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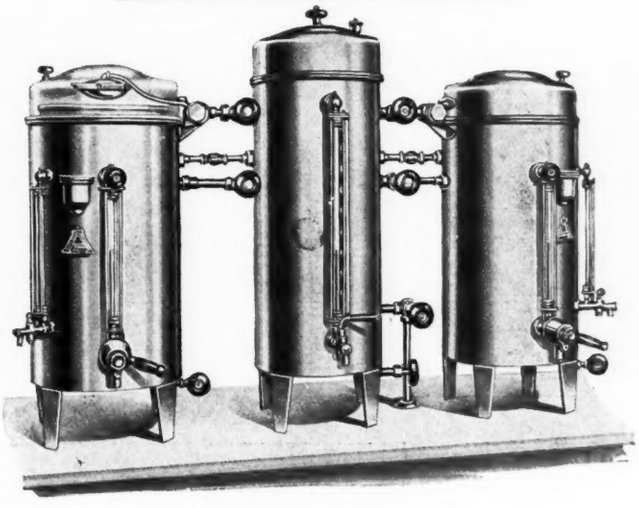
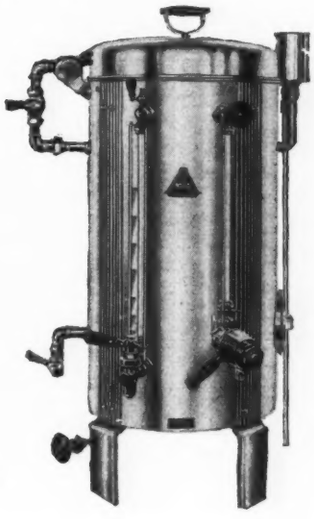
The Single Unit with Battery Performance



BATTERY SYSTEMS



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TO MAKE A BETTER CUP OF COFFEE THAN POSSIBLE WITH ANY OTHER EQUIPMENT

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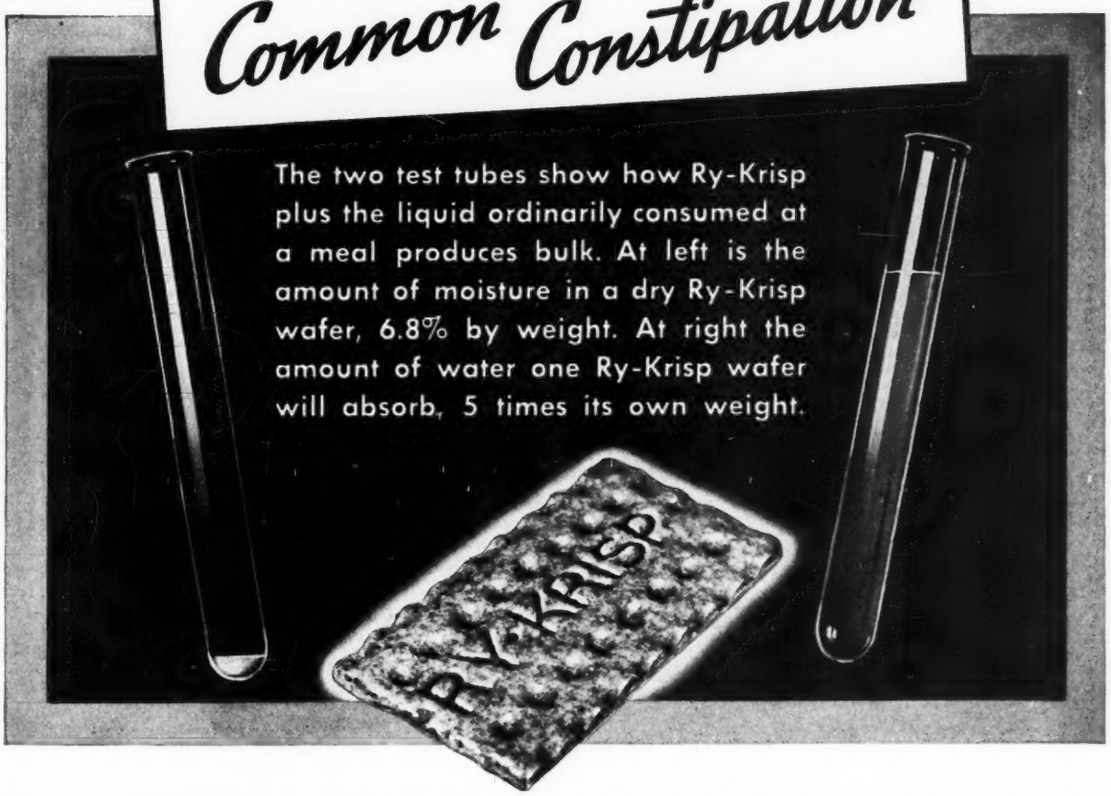
October Menus for the Small Hospital

Ruth M. Hornsby
Dietitian, Memorial Hospital, Owosso, Mich.

	Breakfast		Luncheon or Supper				
Day	Fruit	Main Dish	Soup or Appetizer	Main Dish	Potatoes or Substitute	Vegetable or Salad	Dessert
1.	Stewed Raisins	Baked Cornmeal Mush	Consommé Royale	Cheese Toast		Cabbage and Nut Salad	Banana Snow
2.	Sliced Oranges	Home-Made Cinnamon Rolls	Cream of String Bean Soup	Cold Sliced Ham	Creamed Potatoes	Cottage Cheese and Pepper Salad	Chocolate Cookies
3.	Apples and Cranberries	Baked Sausage	Cream of Onion Soup	Escalloped Corn and Tomatoes		Fruit Salad	Applesauce Cake
4.	Sliced Bananas	Baked Eggs	Cream of Lettuce Soup	Barbecued Spareribs	Sauerkraut	Kidney Bean Salad	Concord Grapes
5.	Prunes with Sliced Oranges	Corn Muffins	Consommé Borscht	Spaghetti Milanaise		Celery Cabbage, French Dressing	Orange Jelly With Whipped Cream
6.	Canned Grapefruit	Bacon	Old Fashioned Vegetable Soup	Escalloped Potatoes and Ham		Hawaiian Salad	Coconut Cookies
7.	Raspberries	Creamed Codfish on Toast	Cream of Carrot Soup	Shrimp Salad	Baked Potatoes	Sliced Tomatoes	Fresh Applesauce
8.	Applesauce	French Toast	Oyster Stew	Stuffed Eggs	Creamed Potatoes	Vegetable Salad	Cream Puffs
9.	Canned Strawberries	Quick Coffee Cake	Hors-D'oeuvres	Chili	French Fried Potatoes	Peach and Cheese Salad	Oatmeal and Coconut Cookies
10.	Berry and Orange Juice Cocktail	Apple Fritters With Bacon	Minted Fruit Cocktail	Rice and Carrot Croquettes, Tomato Sauce	Stewed Corn	Cabbage and Pepper Salad	Plums
11.	Stewed Apricots	Poached Egg on Toast	Cream of Lima Bean Soup	Peppers Stuffed With Rice, Cheese and Hamburger		Celery Hearts	Raspberries
12.	Canned Diced Pineapple	Cottage Cheese and Strawberry Jam	Tomato Bisque	Poached Egg on Asparagus Tips	Baked Potatoes	Frozen Fig Salad	Saltines
13.	Grape Juice	One Egg Muffins	Duchess Soup	Dogs in Blankets	Creamed Potatoes	Celery Cabbage, French Dressing	Baked Pear
14.	Baked Apple	Soft Boiled Eggs	Mushroom Bisque	Nut Chops, Tomato Sauce	Parsleyed Potatoes	Pear and Celery Salad	Spice Cake
15.	Sliced Bananas and Diced Oranges	Twin Mountain Muffins	Cream of Potato Chowder	Corned Beef Hash Patties	Pickled Beets	Vegetable Salad	Norwegian Prune Pudding
16.	Fresh Grapefruit	Bacon and Eggs	Kidney Bean Soup With Lemon	Chop Suey	Fried Noodles	Peach and Peanut-butter Salad	Pineapple Stuffed Cookies
17.	Dried Figs Stewed With Lemon	Buttermilk Bran Bread	Split Pea Soup	Creamed Ham on Biscuits	Buttered Potatoes	Gingerale-Fruit Salad	Molasses Cookies
18.	Spiced Cherry Toddy	Frizzled Ham	Cream of Celery Soup	Eggs à la King	Duchess Potatoes	Buttered Whole Carrots	Chocolate Blancmange
19.	Half Orange	Date Corn Muffins	Jellied Consommé	Egg Plant Stuffed With Hamburger		Celery Hearts	Grapes
20.	Dried Fruit Compote	Coddled Eggs	Corn and Tomato Soup	Welsh Rabbit	Potato Chips	Mixed Fruit Salad	Peanut Drop Cookies
21.	Grapes	All-Bran Muffins	Potato Chowder	Celery and Tuna Soufflé	Buttered Potatoes	Banana Salad Sandwich	Caramel Cookies
22.	Bananas Sliced in Fruit Juice	Baked Hash	Cream of Corn Soup	Meat Rolls With Brown Gravy	Mashed Potatoes	Carrot and Raisin Salad	Canned Peaches, Chocolate Bran Bars
23.	Honeydew Melon	Puffy Omelet	Philadelphia Pepper Pot Soup	Jellied Meat Loaf	Potato Cakes	Celery Cabbage Salad	Marble Cake
24.	Pineapple Juice	Prune Doughnuts	Jellied Tomato Broth	Creamed Asparagus on Toast	Baked Potatoes	Waldorf Salad	Hermits
25.	Stewed Pears	Scrambled Eggs With Dried Beef	Washington Chowder	Baked Lima Beans With Bacon		Spiced Pear and Cottage Cheese Salad	Monkey Faces
26.	Canned Strawberries	Creamed Eggs on Toast	Beet Borscht	Hamburgers and Buns	Hot Potato Salad	Sliced Tomatoes	Glazed Apples
27.	Blue Plums	Cornmeal Muffins	Gingerale Fruit Cocktail	Spanish Omelet	Buttered Wild Rice	Apple, Orange and Cottage Cheese Salad	All-Bran Date Bars
28.	Grapefruit With Honey	Scrambled Eggs	Oyster Stew	Salmon Salad	French Fried Potatoes	Buttered Peas and Carrots	Allspice Layer Cake With Raisin Filling
29.	Steamed Dates	Quick Cinnamon Rolls	Grapefruit and Banana Cocktail	Cheese Fondue	Buttered Diced Potatoes	Tomato Aspic	Canned Huckleberries
30.	Diced Orange in Orange Cups	Ham Omelet	Split Pea Soup	Egg Croquettes	Mashed Potatoes	Apricot and Prune Salad	Gingersnaps and Cider
31.	Pineapple Juice	Scrambled Eggs	Ham Shank and Bean Soup	Cheese Soufflé	Country Fried Potatoes	Escalloped Tomatoes	Frosted Cup Cakes

Recipes will be supplied on request by Anna E. Boller, The Modern Hospital, Chicago. Space precludes listing of cereals, several varieties of which are always offered for breakfast.

Why RY-KRISP is a natural corrective for *Common Constipation*

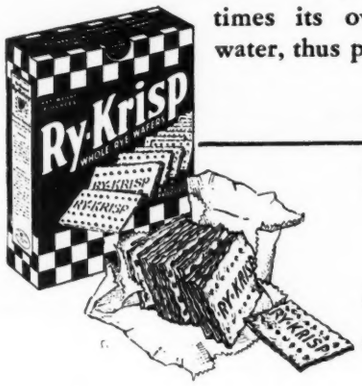

The two test tubes show how Ry-Krisp plus the liquid ordinarily consumed at a meal produces bulk. At left is the amount of moisture in a dry Ry-Krisp wafer, 6.8% by weight. At right the amount of water one Ry-Krisp wafer will absorb, 5 times its own weight.
RY-KRISP

Doctors are finding Ry-Krisp Whole Rye Wafers a natural aid for correcting common constipation due to insufficient bulk for reasons which are obvious when you consider that...

RY-KRISP is simply whole rye, salt and water—*double baked* for brittle crispness. As such a food it has a high percentage of bran, high pentosan and crude fibre content to encourage normal bowel action. Moreover, each wafer absorbs five times its own weight in water, thus producing needed bulk to stimulate natural peristaltic action.

RY-KRISP involves no unpleasant dosage to be avoided or postponed. Instead it offers the tempting, crunchy goodness of a *natural,* delicious food—so good with any meal that patients gladly eat it regularly. Results are dependable, predictable, natural. For that reason alone it is immeasurably valuable to school children, to busy men and women tied down with daily routine.

For free samples and the Research Laboratory Report on Ry-Krisp use the coupon below.



RY-KRISP *Whole Rye Wafers*

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Without obligation, please send me samples of Ry-Krisp and copies of the Research Laboratory Report.

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(This offer limited to residents of the United States and Canada)

Monthly News Review

Vol. 51 September 1938 No. 3

Philadelphia Hospital Care Insurance Wins Sweeping Victory Over Physicians

A sweeping and important victory for hospital care insurance was won last month when the Philadelphia and Pennsylvania Medical Societies withdrew their opposition to the Associated Hospital Service of Philadelphia and gave official approval to the plan as originally drawn up, including the provision of x-ray, cardiography, pathology, basal metabolism, anesthesia and physical therapy.

The only compromise was a change in wording of the contract so that it guarantees to provide these special services to subscribers "when incident to hospitalization" and sets up reserves.

As originally proposed by the hospitals, the plan provides that the subscriber shall be entitled to the various special services to the extent of $35 for x-ray, $25 for laboratory, $15 for cardiography, $10 for basal metabolism, $15 for anesthesia and $15 for physical therapy. It was agreed also that the plan would not disturb existing relationships between patients and physicians or between hospitals and physicians. Where hospitals are now paying radiologists and other similar specialists on a salary or percentage basis, such arrangements are not to be disturbed.

In a newspaper interview, Dr. Francis F. Borzell, president of the Philadelphia County Medical Society, declared that the plan now meets the standards of the American Medical Association. The plan will be started as soon as possible with full family coverage at rates of $9 for one, $18 for two and $24 for three or more persons.

Brooklyn Blood Bank Donors Honored by Doctor Goldwater

The names of Brooklyn residents who have voluntarily contributed during the past month to the blood banks which have been established in the municipal hospitals of Brooklyn have been compiled in a Brooklyn Roll of Honor by Dr. S. S. Goldwater, New York City commissioner of hospitals.

The mounting cost of transfusions and successful experiments with blood banks in Chicago and Philadelphia prompted the city hospitals to install this system in June.

Medical Care Cooperative May Build Its Own Hospital

The Group Health Associates, Inc., of Washington, D. C., a medical care cooperative of 2500 low salaried government employes and a pivotal group in the government's prosecution of the A.M.A. under the antitrust laws, has applied for a permit to build a hospital on a 7 acre tract in a residential zone of Washington.

The proposal was viewed as the group's answer to the District of Columbia Medical Society which has barred Group Health doctors from the surgical facilities of Washington hospitals by threatening to withdraw these hospitals from the A.M.A. "approved" list.

The administrator for the proposed hospital is Perry R. Taylor, business manager and budget officer of the Rural Electrification Administration, and recognized authority in scientific management. He began his new work on August 1.

Health Insurance Favored

The New York state constitutional convention has adopted by a vote of 84 to 66 a clause in the new constitution that will permit the legislature to provide health insurance in the state. The constitution will not go into effect until ratified by the people.

Van Steenwyk, McNary Head Plans

E. A. Van Steenwyk, executive director of the Minnesota Hospital Service Association, has resigned to accept a similar position with the newly formed hospital care insurance organization in Philadelphia. William S. McNary of the Colorado School of Medicine and Hospitals has resigned to head the newly formed hospital care insurance in Denver.

Heads Cook County Hospital

Brig. Gen. Manus McCloskey, U.S.A., retired, officially assumed his new duties as warden of Cook County Hospital, Chicago, on August 1. He succeeds Michael Zimmer, who resigned.

A. H. A. Names New Council on Hospital Care Insurance

A new council on hospital care insurance of the A. H. A. has been appointed by President Neff on authorization from the board of trustees to take the place of the advisory committee of hospital care insurance executives.

The new council will be coordinate with the other six councils of the A. H. A. Frank Van Dyk, New York City, is chairman. He and E. A. Van Steenwyk, St. Paul, are appointed for three year terms. Abraham Oseroff, Pittsburgh, and John A. MacNamara, Cleveland, are appointed for two year terms. Dr. Lewis E. Jarrett, Richmond, and Sherman D. Meech, Rochester, are appointed for one year terms.

N. Y. Hospitals Protest

New York City's voluntary hospitals, through the Greater New York Hospital Association, have asked Governor Herbert L. Lehman to investigate their charges that insurance companies handling workmen's compensation cases are "chiseling" on hospital bills by withholding payments and generally seeking to have hospitals provide bed care at less than cost. The association has also entered a protest to the New York City board of estimate against the resolution passed by the council of the City of New York which requests that the board of estimate withhold city payments from all hospitals that do not comply with the state "little Wagner" labor relations law.

Miss McMillan Will Retire

M. Helena McMillan, after 35 years of service as superintendent of nurses and director of the school of nursing of Presbyterian Hospital, Chicago, will retire in October. In 1936 Miss McMillan was awarded the Saunders Medal for outstanding contributions to her profession.

Fesler Resigns Wesley Post

Paul Fesler, superintendent of Wesley Memorial Hospital, Chicago, since 1932, has resigned, effective September 1. Mr. Fesler plans to engage in consulting work in hospital administration and construction.

In Retrospect

WITH this issue MODERN HOSPITAL observes its twenty-fifth birthday. First in its field, inspirational in its service, consistent in its principles, MODERN HOSPITAL today enjoys a journalistic leadership which is well deserved.

We, too, have made some progress in the last twenty-five years. During this period we have been privileged to co-operate in the development of many medicinal products which have become important factors in medical care. Included in the group are Iletin (Insulin, Lilly); Liver Products; Ephedrine Preparations; 'Ergotrate' (Maleate of a New Ergot Base, Lilly); 'Merthiolate' (Sodium Ethyl Mercuri Thiosalicylate, Lilly); 'Amytal' (Iso-amyl Ethyl Barbituric Acid, Lilly); 'Sodium Amytal' (Sodium Iso-amyl Ethyl Barbiturate, Lilly); 'Seconal' (Sodium Propyl-methyl-carbinyl Allyl Barbiturate, Lilly); Vitamin Products, accurately assayed in accordance with approved biological methods.

ELI LILLY AND COMPANY

PRINCIPAL OFFICES AND LABORATORIES, INDIANAPOLIS, INDIANA, U. S. A.

A.H.A. Convention Program

Dallas, Sept. 26 to 30

Dietetic Section

Monday, 9:00 a.m.

Addresses: Dietary Supervision and Service in Hospitals in Small Communities, Helen Branham, Tupelo, Miss., Mabel Gladin, Tupelo, Miss. and Robert Jolly, Houston, Tex.

Address: Significant Nutritional Developments to Be Considered in Institutional Food Service, John H. Musser, M.D., Tulane University.

Discussion: Rose Richter, Dallas.

Address: Modern Dishwashing for Institutions, Elizabeth Atkerson, Dallas, Tex.

Address: Selection and Maintenance of Institutional Equipment, Thelma Streit, Austin, Tex.

Address: Satisfaction and Economy in Personnel Feeding, Marie L. Hines, Cleveland.

Discussion: E. M. Dunstan, M.D., Dallas, Tex.

Address: Personnel Relationships—Employe Training, Mary E. Smith, Houston, Tex.

Address: A Suggested Procedure of Routine Health Examinations for Hospital Employes, Lucius R. Wilson, M.D., Galveston, Tex.

General Business Session

Monday, 2:00 p.m.

Address: The Hospital of the Future, E. H. Lewinski-Corwin, Ph.D., New York.

Address: The Relation of Hospital Service to a National Health Program, Arthur J. Altmeyer, chairman, Social Security Board, Washington, D. C.

Address: Volunteer Service for Women's Auxiliaries, Mrs. John G. Benson, Indianapolis.

Address: Study of Rural Hospitals, V. M. Hoge, M.D., U. S. Public Health Service, Washington, D. C.

Committee Reports: Rt. Rev. Msgr. M. F. Griffin, Asa S. Bacon, A. C. Bachmeyer, M.D.

A. H. A. House of Delegates

Monday Afternoon

Pharmacy Section

Monday, 2:00 p.m.

Address: Function and Scope of Hospital Pharmacies, Lewis E. Jarrett, M.D., Richmond, Va.

Address: Educational Standards and Personnel, R. M. Porter, Akron, Ohio.

Address: The Place of Pharmacy in the Education of the Nurse, Sister M. Adelaide, Youngstown, Ohio.

Address: To What Extent Should Hospital Pharmacists Manufacture, J. Solon Mordell, Syracuse, N. Y.

Address: Should There Be an Association of Hospital Pharmacists, Russell H. Stimson, Cleveland.

General discussion after each of the foregoing papers.

President's Session

Monday, 8:00 p.m.

Invocation and Addresses of Welcome.

President's Address: Robert E. Neff, F.A.C.H.A.

Introduction of President-Elect: G. Harvey Agnew, M.D.

Presentation of Gavels to the Presidents of State and Provincial Associations: Robert E. Neff.

Conferring of National Hospital Day Award: Albert G. Hahn, Evansville, Ind.

Tuberculosis Section

Tuesday, 9:00 a.m.

Address: The Rôle of the Sanatorium in Vocational Rehabilitation of the Tuberculous, Holland Hudson, New York.

Address: Sanatorium Administration, B. W. Black, M.D., Oakland, Calif.

Address: Continuity of Care in Tuberculosis, Harold Guyon Trimble, M.D., Oakland, Calif.

Address: The Rôle of the General Hospital in the Control of Tuberculosis, H. F. Kleinschmidt, M.D., National Tuberculosis Association.

Address: Standards and Special Training in Tuberculosis Nursing, M. Pollack, M.D., Peoria, Ill.

Discussion will follow each of the foregoing papers.

Out-Patient Section

Tuesday, 9:00 a.m.

Address: Community Planning for Complete Medical Relief Service in Clinics, Frank E. Wing, Boston.

Address: Inter-Relationship of Out-Patient and Hospital Service, John V. Lawrence, M.D., St. Louis.

Address: Methods of Evaluation of Medical Treatment in Clinics, Frederick MacCurdy, M.D., New York.

Round Table: Health Insurance or What Next, Michael M. Davis, New York, leader.

Mechanical Divisions Section

Tuesday, 9:00 a.m.

Addresses: Factors Involved in the Hospital Fuel Problem—Oil, G. Harvey Porter, Oil Burner Institute; Soft Coal, C. A. Reed, National Coal Association; Hard Coal, Hobart L. Littell, Anthracite Institute.

Address: The Mechanical Division of Hospital Operation as It Relates to the Administrator's Problem, Fraser D. Mooney, M.D., Buffalo, N. Y.

Robert E. Neff

G. Harvey Agnew

Address: The Hospital Laundry Service Problem From the Administrator's Viewpoint, George O'Hanlon, M.D., Jersey City, N. J.

Address: General Summarization of Entire Program, Donald C. Smelzer, M.D., Philadelphia.

Tuberculosis Round Table

Tuesday, 2:00 p.m.

Address: What Shall Be Included in the Annual Report, Emil Bogen, M.D., and Edwin S. Bennett, M.D., Los Angeles.

Address: The Rôle of Social Service in the Tuberculosis Sanatorium, E. L. Mariette, M.D., Oak Terrace, Minn.

Nursing Section

Tuesday, 2:00 p.m.

Addresses: Nursing Problems and Their Solution—From the Superintendent of Nurse's Viewpoint, Sister Antonia, Dallas, Tex.; From a Hospital Administrator's Viewpoint, R. C. Buerki, M.D., Chicago.

Address: Public Health Nursing, Emily Robson, St. Louis.

Address: Accreditation—What It Hopes to Accomplish, Clara Quereau, N.L.N.E., New York City.

Purchasing Agents' Section

Tuesday, 2:00 p.m.

Addresses: Fundamentals of Purchasing—Relationship of the Purchasing Agent to the Superintendent and Department Heads, John G. Benson, Indianapolis; Relationship Between the Purchasing Agent and the Salesmen, George U. Wood, Oakland, Calif.

Addresses: Specific Purchasing Problems—Intravenous Solutions, A. J. Hockett, M.D., New Orleans; The Sealed Bid System, J. B. H. Martin, Indianapolis; Wax and Soap, Ray Amberg, Minneapolis.

Report: Committee on Simplification and Standardization of Hospital Furnishings, Supplies and Equipment, L. M. Arrowsmith, Brooklyn.

Motion Picture: Secret Sins of Sanitation, E. L. Penfrase, Copper and Brass Research Association.

Orthopedic Clinical Demonstration

Tuesday, 2:00 p.m.

Arranged by: Scottish Rite Hospital for Crippled Children, Dallas, Tex.

More Vitamin C
in Fresh Orange Juice

WITH NEW Sunkist EXTRACTOR

JUICE-YIELD RAISED IN QUANTITY AS WELL AS QUALITY...TIME SAVED

An improvement in extraction equipment now increases the vitamin C content of freshly expressed orange juice as much as 12% to 23%. The foremost dietary source of the anti-scorbutic factor is given a near-maximum of potency.

This improvement is an *oscillating strainer* incorporated in the new-model Sunkist Extractor. The juice is forced vigorously through a series of slots and holes. Thus it is enriched with edible portions of the fruit heretofore discarded.

MORE VITAMIN C IN OUTER CELLS

Vitamin C concentration increases toward the periphery of the orange. Power reaming dislodges the rich outer juice sacs along with the albedo for further shredding in the oscillating strainer.

The vitamin C (water-soluble ascorbic acid) is more completely leached out into the strained juice, making available the near-maximum of this important therapeutic food essential.

Sunkist

Investigate the ability of the new Sunkist Extractor to give more and richer juice from oranges in less time. It is priced at only $54.95, f.o.b., Chicago. Ask your supply house for a demonstration, or write California Fruit Growers Exchange, Sunkist Bldg., Los Angeles.

ENRICHMENT PROVED BY ANALYSES

Repeated analyses show that virtually all of the vitamin C contained in the edible portion of the fruit goes into the juice — from 12% to 23% more than with other methods such as pressure squeezing.

The *volume* of juice is increased also through inclusion of more solids. Simultaneous extracting and straining saves time and minimizes the difficulty of supplying patients with really fresh orange juice at peak hours.

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Subjects: Out-Patient Department, Care of Plaster Cases, Brace Shop Scene.

Trustees' Section

Tuesday, 8:00 p.m.

Address: Hatton W. Sumners, Member of Congress from Texas.

Address: The Importance of Being Educated for Any Job That One Undertakes, Freeman W. Bufford, Dallas, Tex.

Address: How a Trustee Can Learn About His Own Hospital, E. B. Germany, Dallas, Tex.

Address: How a Trustee Can Learn About Hospitals Through the Associations—Local, State and National, Carr P. Collins, Dallas, Tex.

Address: How a Trustee Can Learn About Hospitals Through Publications, H. J. Curtis, Dallas, Tex.

Children's Hospital Section

Wednesday, 9:00 a.m.

Address: What Provision Is Being Made to Teach the Patient While in the Hospital, Margaret A. Rogers, Detroit.

Discussion: Margaret S. Ingersoll, Chicago.

Address: Control of Infection in Children's Hospital, Hugh Leslie Moore, M.D., Dallas, Tex.

Discussion: Harold T. Nesbit, M.D., Dallas, Tex.

Address: Orthopedics, a Challenge to the Hospital Administrator, Mildred Riese, Los Angeles.

Discussion.

Social Service Section

Wednesday, 9:00 a.m.

General Topic: Social Aspects of Recent Governmental Health Programs as Related to Hospitals.

Addresses: Venereal Disease Control, R. A. Vonderlehr, M.D., U. S. Public Health Service; Frederick MacCurdy, M.D., New York; Grace White, New Orleans.

Addresses: Maternal and Child Health, Jessie M. Bierman, M.D., Children's Bureau; Ray Amberg, Minneapolis; Beatrice Hall, Children's Bureau.

Luncheon: Medical social workers.

Small Hospital Section

Wednesday, 9:00 a.m.

Address: Safeguarding the Patient Against Unnecessary Surgery—a Plan to Set Up a Regional Consultation Service, J. J. Golub, M.D., New York.

Address: Hospital Care Insurance in Rural Areas, Felix A. Grisette, Chapel Hill, N. C.

Address: Problems of the Small Hospitals of Canada, W. S. Caldwell, M.D., Canadian Hospital Council.

Demonstration: The Small Hospitals of the South—an Accounting Demonstration, Graham L. Davis, Duke Endowment, assisted by Gilbert Muse, High Point, N. C.

A. H. A. House of Delegates

Wednesday Afternoon

Hospital Care Insurance Section

Wednesday, 2:00 p.m.

Address: Hospital Care Insurance and Social Security, Louis S. Reed, Social Security Board, Washington, D. C.

Address: Hospital Responsibility in Nonprofit Insurance Plans, Basil C. MacLean, M.D., Rochester, N. Y.

Address: English Hospital Contributory Schemes, Frank Van Dyk, New York.

Address: Report of Committee on Hospital Service, C. Rufus Rorem, Ph.D., Chicago.

Planning and Plant Operation Section

Wednesday, 2:00 p.m.

Address: Air Conditioning, Lucius R. Wilson, M.D., Galveston, Tex.

Discussion: A. J. Hockett, M.D., New Orleans.

Address: Advantages of Vertical Over Horizontal in Hospital Construction, James Govan, Toronto, Canada.

Discussion: Howard E. Bishop, Sayre, Pa.

Address: Acoustics, W. J. Hodge, New York.

Discussion: Basil C. MacLean, M.D., Rochester, N. Y.

Address: Renovating and Remodeling, Mrs. Kate V. Tipping, New Orleans.

Discussion: Dewey Lutes, Chicago.

Administration Section

Wednesday, 2:00 p.m.

Address: The Relation of Hospital Services to Comprehensive Programs of Health and Medical Care for Mothers and Children, Katharine F. Lenroot, Children's Bureau, Washington.

Address: Prevailing Ratios of Personnel to Patients in Hospitals Offering General Care, Joseph W. Mountin, M.D., and Elliott H. Pennell, U. S. Public Health Service, Washington.

Address: An Approach to the Hospital Personnel Problem, James A. Hamilton, New Haven, Conn.

Address: Cost Study of Nursing Service and Nursing Education, Blanche Pfefferkorn, R.N., N.L.N.E., New York, and Charles A. Rovetta, Chicago.

Address: Hospital Patients' Libraries, Maria Rainey Foley, St. Paul.

Clinical Demonstration on Group Hospitalization

Wednesday, 2:00 p.m.

Arranged by: Baylor University Hospital, Dallas, Tex.

2:10 p.m.: Hospitalization Insurance Origin and Operation.

2:30 p.m.: Preoperative Preparation of Patient.

3:00 p.m.: Consultation With Surgeon, Internist, Anesthetist (for Choice of Anesthesia) and Preoperative Medication.

3:30 p.m.: Methods of Anesthesia Induction.

Panel Discussion on Public Relations

Thursday, 9:00 a.m.

Leader: Michael M. Davis, Ph.D., New York.

Program: To be arranged.

Panel Discussion on Hospital Care Insurance

Thursday, 9:00 a.m.

Question: Is Hospital Insurance Practicable in a Town of 15,000? G. W. Eutsler, Kingsport, Tenn.

Question: How Much Money Does It Take to Start a Plan? H. V. Maybee, Wilmington, Del.

Question: How Many Subscribers Are Necessary to Start a Plan? D. Lane Tynes, Louisville, Ky.

Question: Can Labor Unions, Credit Unions or Farm Groups Be Enrolled? Donald Murphy, Decatur, Ill.

Question: Do Hospitals Lose Any Money From Participating in Plans? M. Haskins Coleman, Richmond, Va.

Question: Do Doctors or Patients Tend to Abuse the Plan? H. C. Stephenson, Utica, N. Y.

Five minute answers will be given by the designated executives of plans approved by the A.H.A.

Other Suggested Questions: Is payroll deduction necessary? Who is the legal guarantor of benefits to the subscriber? May self-employed individuals be enrolled? Can benefits be obtained in nonparticipating hospitals? Can a single-hospital plan succeed? Is the nonprofit feature necessary?

Round Table on Small Hospital Problems

Thursday, 9:00 a.m.

Chairman: Arden E. Hardgrove, Louisville, Ky.

Program: To be arranged.

Clinical Demonstration on Emergency Room Technic

Thursday, 2:00 p.m.

Arranged by: Parkland Hospital, Dallas, Tex.

Equipment necessary to care for fractured femur.

Use of local anesthesia.

Use of fluoroscope.

Use of portable x-ray.

Use of other equipment which should be on hand in emergency room.

Emergency treatment of burn cases, poison, laceration and shock cases.

(*Continued on page* 174)

LUNCHEON TRAY

● Club fruit salad; buttered toast made on TOASTMASTER Toaster; raspberry jam; chocolate blanc mange with whipped cream; milk.

TOAST is an attractive and easily digestible form of carbohydrate—ideal for BLAND DIETS • SMOOTH DIETS • LOW RESIDUE DIETS • SURGERY DIETS • INFANT FEEDING —as a supplementary food.

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FOR FUSSY PATIENTS

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WHEN nerves are on edge and appetites dull, it's a comfort to know that toast, at least, is *always* hot, fresh, crisp and appetizing — when made on TOASTMASTER Toasters. Patients are pleased, service is faster and another "home-like" touch is added to build good will while building health.

There are so many interesting, tempting ways to serve toast in every type of hospital diet! Toast costs *so little* when made on TOASTMASTER Toasters it's costing you too much to make it any other way. No mistakes. No burned bread. No wasted current. You'll wish *every* employee were as dependable and inexpensive.

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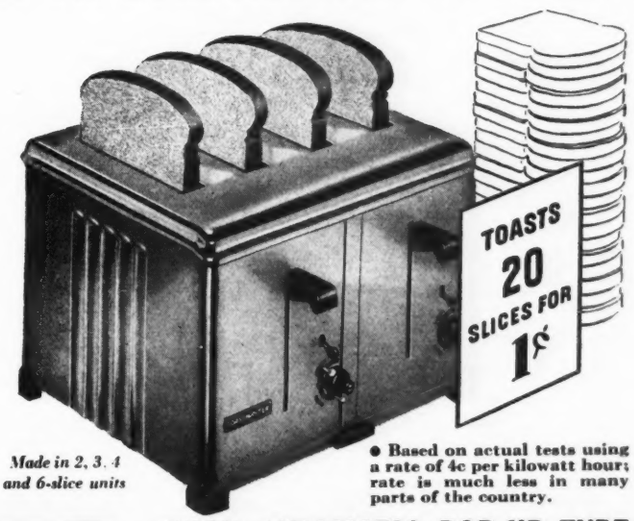

Made in 2, 3, 4 and 6-slice units

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"TOASTMASTER" TRADEMARKED FULLY AUTOMATIC PRODUCTS: TOASTERS • ROLL AND FOOD WARMERS • WAFFLE BAKERS • GRIDDLES

"Empty Trays"

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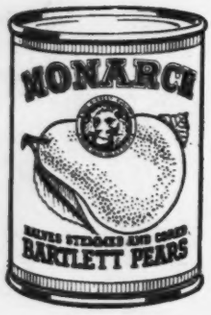
The consistent regularity with which convalescent patients with finicky appetites consume their servings of



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MILESTONES in HOSPITAL HISTORY—1913-1938

By ALDEN B. MILLS

1913 (Federal Reserve Act)

The MODERN HOSPITAL established.

First evening pay clinic started at Boston Dispensary.

Rectal anesthesia consisting of oil with ether introduced by Gwathmey (New York). This method had been suggested by Roux in 1847; Pirogoff (St. Petersburg) used liquid ether rectally that same year. In 1903 Cunningham (Boston) used air with ether; oxygen with ether was used in 1910.

Cannon published first edition of "Social Work in Hospitals" (revised edition published in 1923.)

Social service department established at Brooklyn City Dispensary, the third in the United States.

John Allan Hornsby, editor, The MODERN HOSPITAL, proposed inspection and standardization of hospitals.

American College of Surgeons established as outgrowth of informal Clinical Congress of Surgeons.

Babcock advocated the fifth or "hospital" year as prerequisite for medical licensure.

Matas began use of "continued intravenous drip" method of intravenous therapy in Touro Infirmary and Charity Hospital, New Orleans.

Schick introduced susceptibility test for diphtheria.

Holst and Frolich postulated vitamin C.

Coolidge tube, invented in 1912, introduced in hospitals.

Potter-Bucky diaphragm introduced.

Rockefeller Foundation chartered.

New York State Commission on Ventilation organized.

Dochez, Gillespie and Avery typed the pneumococci.

Maude Slye began experiments on hereditary susceptibility to and immunity from cancer.

First survey of hospitals by A.M.A. recorded 2424 hospitals of 25 beds or more.

Radium discovered in Belgian Congo just as first American produced radium from Colorado was being extracted. (Congo radium was not developed, however, until 1921.) Price of radium in 1913 was about $165,000 a gram, in 1921-24 it dropped to $90,000.

McCollum and Davis discovered fat soluble vitamin (vitamin A) necessary for growth.

1914 (World War)

Goldwater adopted periodic physical examination for employes of New York City Health Department.

The MODERN HOSPITAL editorially opposed the use of "all-white" operating rooms, suggesting instead green or gray colors.

Hurd urged physicians who plan to enter general practice, especially in smaller cities, to take their internship in a small community.

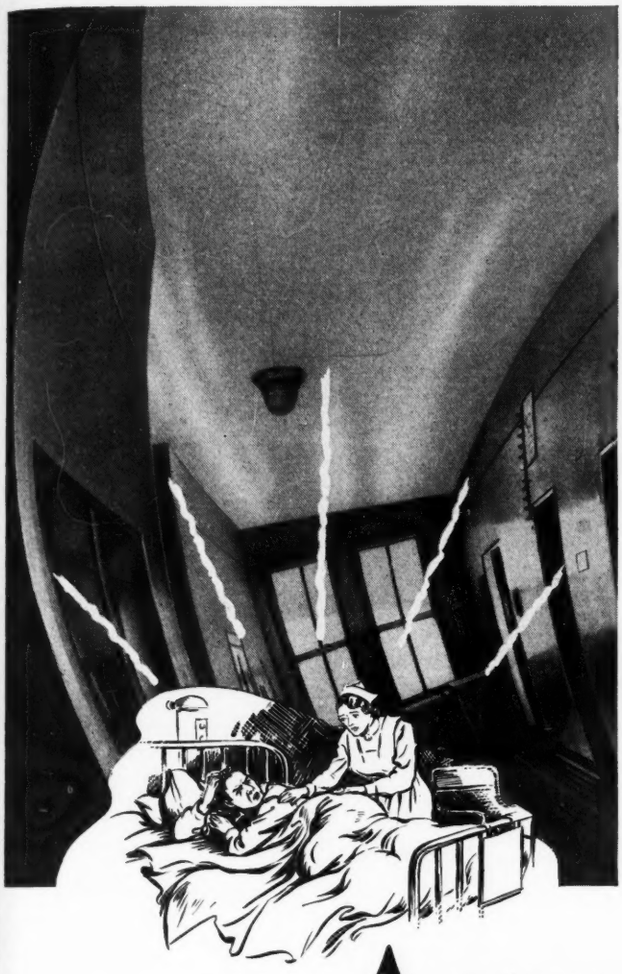
White declared that every city should have a municipal hospital with a psycopathic ward.

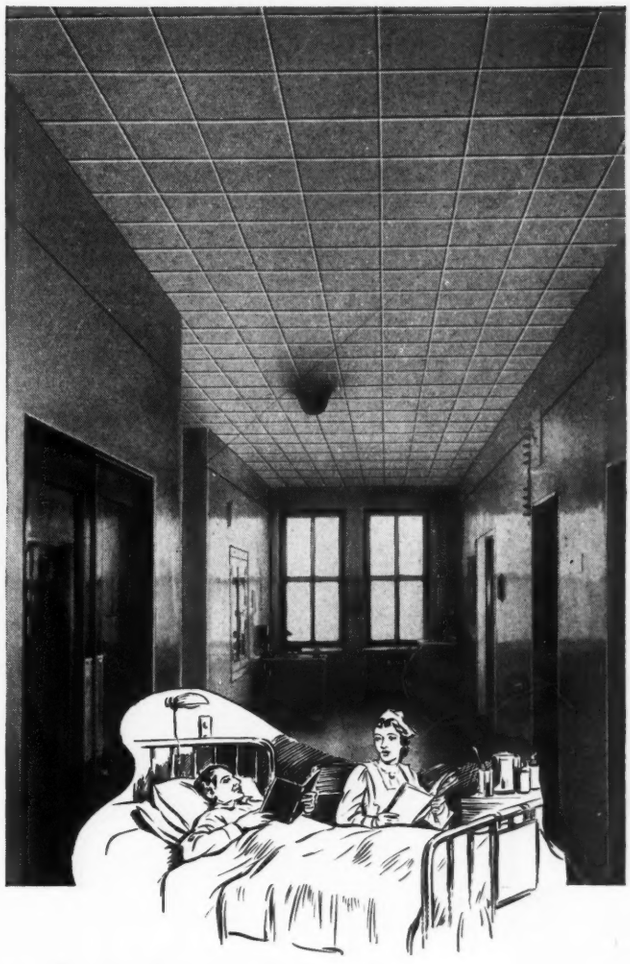
Hess infant incubator made available to hospitals.

The MODERN HOSPITAL declared editorially that "fee splitting in the medical profession has come to be a national disgrace."

The Society of the New York Hospital became the first

Disappointing progress . . . . . or speedy recovery?





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Acoustone is incombustible. It will not harbor germs, and is easily kept fresh by occasional vacuum cleaning. Complete information about Acoustone applications for hospitals is yours for the asking. Mail the coupon.

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If you want finer workers . . . if you want work that you would love . . .

We heard a tale again the other day that told that *nothing* great was ever accomplished without great enthusiasm.

It had, *again*, a resonant, deep and sounding tone, the kind that stops us all stone still to nod our heads emphatically, to make us thinkers for the moment . . . . . then, sometimes, to relax and forget.

For folks who know its truth, for folks who know the worth of eager energy, for folks who have enthusiasm that never knows a clock and hums a tune on tough and stubby tasks . . . . and only asks to do each task the way it should be done, far better than the last . . . . . .

. . . . . we've *gorgeous* work for *you*, or we will find it for you.

We deal in people . . . . . find jobs they'd love for spunky, eager folks, for smart and kind and lovable folks . . . . . and never stop until we find and place them in the jobs they'd love . . . . . square pegs in square holes, round pegs in round holes.

If you want workers, helpers like *these*, if you want a resident, a physician who has specialized in some branch of medicine, an administrator, supervisor, anaesthetist, a staff nurse, dietitian, or laboratory worker . . . . . or if you are one of these and ask for a finer position . . . . write and tell us what *you* want . . . . . we will find it for you for *that* is our great work.

VISIT US AT BOOTH 126 AT THE A. H. A. CONVENTION, DALLAS.

The MEDICAL BUREAU

55 E. Washington Street CHICAGO, ILLINOIS

American voluntary hospital to create a comprehensive pension system for employes.

Hornsby declared that "there are not three competent hospital dietitians in this country."

Eight states had compulsory state registration laws for nurses and 31 had permissive laws.

A.H.A. met in St. Paul with Howell as president and Boyce as secretary. Committee on development recommended a house of delegates.

The MODERN HOSPITAL announced that it would accept no advertising unless the product passed critical scientific tests and the copy presented a truthful and understandable statement of facts.

Johns Hopkins announced the first full-time salaried medical school faculty.

American Social Hygiene Association founded.

First provisional list of hospitals approved for internships published by A.M.A. (603 hospitals with 3095 internships).

Leonard Hill devised an experimental room for oxygen therapy.

1915 (Lusitania)

Four hospitals in the United States had electrocardiographs.

Davis, director, Boston Dispensary, reported that there were between 700 and 750 out-patient departments in the United States, seven times as many as in 1900.

Catholic Hospital Association formed under direction of the Rev. Charles B. Moulinier.

Study of 1000 dispensary cases in Philadelphia revealed only 20 cases of "dispensary abuse."

National Society for Prevention of Blindness founded.

Carrel-Dakin treatment of infected (gunshot) wounds developed.

Weber devised method of examining the abdominal viscera by roentgenography (pneumo-peritoneum).

Mayo Foundation for Medical Education and Research organized (Rochester, Minn.)

Goldberger investigated pellagra.

Tetanus inoculation in gunshot wounds developed.

Massachusetts General Hospital started pay clinic for diagnosis, with patients admitted only when referred by a physician.

Adrian Stokes devised nasal catheter method of oxygen therapy much as used today, modifying the method followed by Sir Arbuthnot Lane at Guys Hospital in 1907. Oxygen therapy had been founded by Thomas Beddoes (Bristol) in 1790 but neglected by his successors for more than a hundred years.

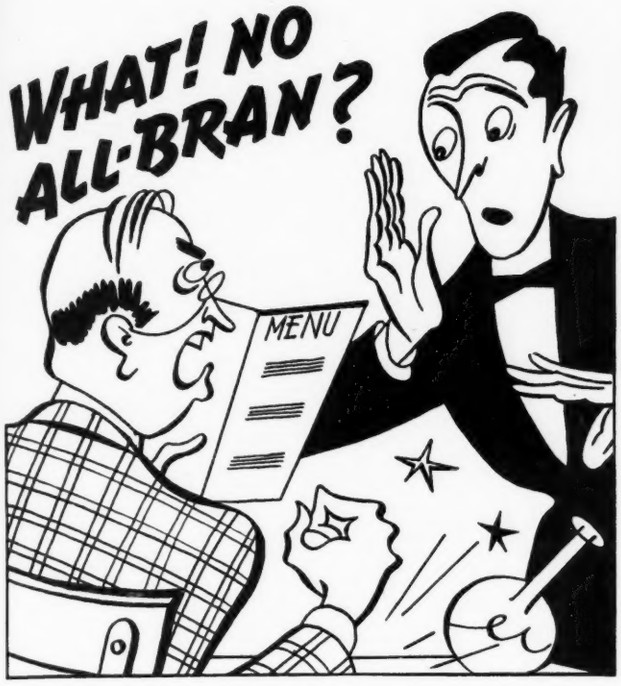
Water-soluble vitamin proved to be necessary for growth (McCollum and Davis). This vitamin was considered identical with the antinephritic vitamin discovered by Eijkman in 1897.

1916 (Woodrow Wilson Again)

Meltzer used magnesium sulphate for intravenous anesthesia, a method first attempted in 1847 by Pirogoff and Von Flour and in 1872 by Ore (Lyons) using chloral hydrate and others using ether.

Netter of the Pasteur Institute used convalescent blood as serum for protection against measles.

Annie W. Goodrich reported that sixteen universities maintain schools, departments or some courses in nursing



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● Millions of people make a daily habit of eating this natural laxative cereal. They will appreciate finding it on your breakfast menus!

This is a fact that restaurant owners everywhere are learning. And it is giving their regular breakfast cards another popular and profitable feature.

All-Bran Muffins, too, are making a hit everywhere. They have a special crunchy texture and nut-sweet flavor that ordinary bran muffins can't touch. Try them just once and hear what your patrons say! You'll find them in steady demand. Just follow the simple recipe below, which is also given on every package.

TO MAKE ALL-BRAN MUFFINS: Cream together thoroughly 2 tablespoons fat and ¼ cup sugar. Add 1 egg and beat until creamy. Stir in 1 cup Kellogg's All-Bran and ¾ cup milk; let soak until moisture is taken up. Sift together 1 cup flour, ½ teaspoon salt and 2½ teaspoons baking powder. Add to first mixture and stir only until flour disappears. Fill greased muffin pans two-thirds full and bake in moderately hot oven (400° F.) about 30 minutes. Recipes for other delicious things you can make with All-Bran are available on request. And, remember, All-Bran is just as effective when used in cooking as when served as a breakfast cereal.

MADE BY KELLOGG IN BATTLE CREEK

"S O S" is a striking folder containing important, timely information for Kitchen Operators. It will be mailed soon. Watch for it. Make sure that a copy reaches you personally. Use coupon below.

See, for example, how the Hobart KITCHEN SLICER'S *automatic accuracy* produces servings at definitely known costs —and *extra servings!*

See how EACH Hobart Machine contributes actual savings daily: in potato peeling; in dishwashing; in mixing and general food preparing; in food cutting; in whipping cream and many other operations.

If you are interested in lower costs of serving meals, be sure to read this "S O S" (Save, Oh Save) Folder.

THE HOBART MFG. CO., 909 Penn Ave., Troy, Ohio

HOBART ELECTRIC KITCHEN Machines

Please be sure to mail me copy of "S O S" free. Especially interested in

☐ Kitchen Slicers ☐ Dishwashers ☐ Mixers
☐ Potato Peelers ☐ Food Cutters ☐ Air Whips

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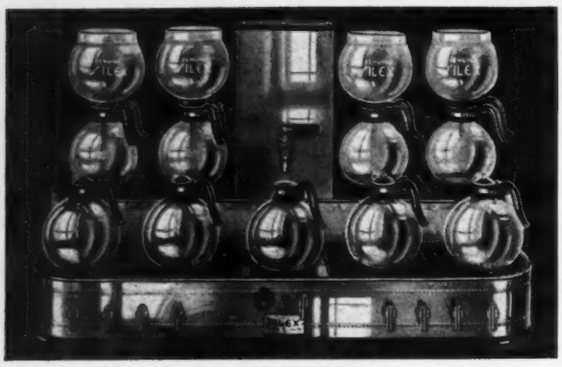
SENSATIONAL SAVINGS UP TO $35 ON A Genuine SILEX GLASS COFFEE MAKER

TRADE MARK REGISTERED U.S. PAT. OFF.

Trade-in offer good only to October 20, 1938



NEW YORKER MODEL

8-unit Gas model. Stainless steel range body—4 gallon water tank with Automatic Filling Device and Thermostatic Heat Control supplies hot water (190°) at high speed. Brews as few as 12—or as many as 396 cups per hour.

Here's a golden opportunity to improve your coffee making equipment at an amazingly reasonable cost. Trade in your old equipment and install a brand-new, smart looking Silex Glass Coffee Maker. Trade-in allowances from $2 to $35 according to size.

Silex Commercial Units have earned an enviable reputation for making fine coffee in hundreds of hospitals, hotels and restaurants; and Silex equipment can do the same for you. It makes full flavored, better-tasting coffee . . . minus the excess acid that over-brewing produces. Patients like this delicious coffee and it's healthful. And Silex is clean, quick and economical to operate.

GENEROUS TRADE-IN ALLOWANCES ON MODELS TO MEET ALL REQUIREMENTS

$35 allowance on 8-unit models with built-in hot water tanks—either gas or electric. Stainless steel ranges.
$20 allowance on 4-unit models with built-in hot water tanks—either gas or electric. Stainless steel ranges.
$5 allowance on FAIRMOUNT 4-unit (gas) or ROYAL 4-unit (electric) Stainless steel ranges.
$4 allowance on FAIRMOUNT 3-unit (gas) or ROYAL 3-unit (electric) Stainless steel ranges.
$2 allowance on SINTON 2-unit (gas) or TRAYMORE 2-unit (electric).

Trade-in allowances only on models complete with glassware.

All Silex Commercial Models now furnished with the sensational new upper bowl handle, simplifies handling of hot upper bowl . . . famous Silex patented filter; fastened securely, it is the only method that insures clear, clean coffee free of all sediment . . . Pyrex Brand Glass.

All tank models are equipped with Solenoid valve water control. Installed on the cold water feed line, this exclusive feature eliminates any possible trouble from alkaline deposits. When ordering tank models either gas or electric, specify voltage—type of current (A.C. or D.C.)—and cycles, for the Solenoid valve.

Regular list prices from $17.45 to $228.45.

FREE Bowl Holder with every trade-in!

This Moldex rack offers a convenient, simple place to keep two upper bowls. It may be fastened on the wall or counter.

And it's FREE with your investment in one of these trade-in models.

Additional racks may be purchased at $1.50. With carrying handle $1.95.

THE SILEX CO., Dept. MH, Hartford, Conn.
Without cost or obligation, tell me about special trade-in plan.
Name.....
City..... State.....

education, most of them having a rather tenuous relation with the nursing schools.

Massachusetts, California, New York, New Jersey and Illinois had commissions on health insurance.

A.H.A. published a report on grading and classification of nurses.

Bull introduced antitoxin for gas gangrene.

"Bacon Plan" of arranging toilet and service facilities for private rooms proposed.

Heat-resisting glassware used in laboratories.

New Haven dental clinic started.

Union Hospital Act passed in Saskatchewan.

1917 (U. S. A. Declares War)

Seventy-fifth anniversary of the first surgical use of ether as an anesthetic by Long of Georgia.

Windous extracted cholesterin (vitamin D) from cod-liver oil and formulated it.

Hospitals mobilized for war.

First standardization conference of the American College of Surgeons held in October.

American Dietetic Association formed at Cleveland on call of Lulu Graves, dietetic editor of The MODERN HOSPITAL, who was chosen president.

German Hospital (now Grant) of Chicago adopted 8 hour day for all nurses in hospital.

American Occupational Therapy Association founded.

Julius Rosenwald Fund established.

First edition of "Curriculum for Schools of Nursing" published.

Von Economo described encephalitis lethargica.

Principles of wound excision established (Gale-Lemaitre).

Mental tests employed in recruiting soldiers.

Oxygen therapy revived by Haldane for gas poisoning cases and Meltzer for pneumonia.

Wagner-Jauregg (Vienna) inoculated a paresis patient with malaria.

Baer used live maggots to treat war injuries.

Establishment of food clinic at Boston Dispensary.

1918 (Armistice)

Luckhardt and Carter (University of Chicago) noted the anesthetic effect of ethylene on carnations. Ethylene was discovered in 1849 by Numnely of Leeds.

Dandy evolved method of roentgenography of the brain by injection of air into the spinal cord (ventriculography).

Goldwater's A.H.A. war service committee appealed for more doctors for the Army.

Transfusion of large quantities of blood by the citrate method developed by Dr. Richard Lewisohn of New York.

Diagnostic research clinic established at Columbia University for middle-class patients.

Davis and Warner advocated remunerating dispensary physicians for services to patients above the indigent class.

Student government introduced in nursing schools.

Benedict described new portable metabolism apparatus.

First hospital standardization survey made by American College of Surgeons.

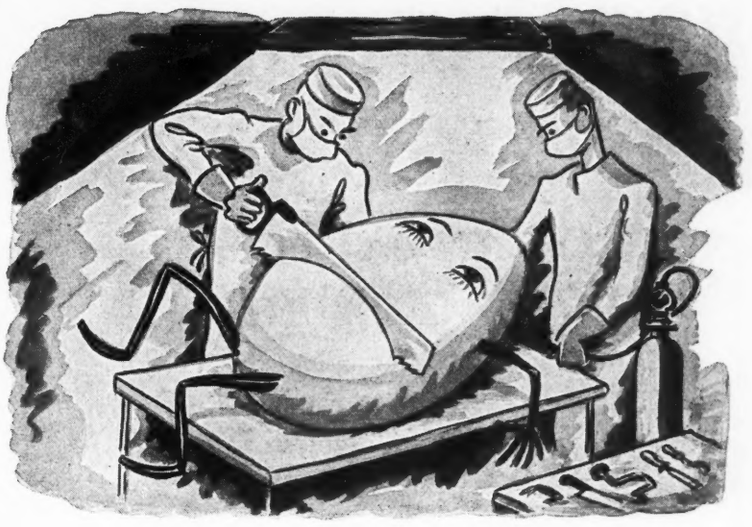
Commonwealth Fund established.

Spanish influenza became epidemic.

Maternity Center Association formed to establish centers throughout the borough of Manhattan.

American Association of Hospital (later Medical) Social Workers organized.

AMPUTATE THE EGGS FROM YOUR BAKING BILLS



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Just add water and bake!

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Your jobber carries a full line of FIXT Products . . . everything from Muffins and Cup Cakes to Waffles, Pie Crust, Griddle Cakes and Biscuits, fifteen delicious fully prepared mixes. Ask him about them. Or write us direct and we will gladly send our helpful booklet, "76 FIXT Recipes".

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SUNFILLED BRAND ORANGE JUICE 57¢ Gal.

INTRODUCTORY OFFER

We will ship a case prepaid with the privilege of returning unused portion if not entirely satisfactory.

Made from SUNFILLED Brand Orange Concentrate which retains to a very high degree the color, flavor, vitamin content and food values of the fresh fruit juice.

A 10 to 1 orange concentrate—just the water taken out and nothing added—no sugars, acids or preservatives. Return the water—9 parts to 1—and the natural flavors and food elements of the fresh fruit juice are reproduced in high degree.

Hospital Administrators and Dietitians use SUNFILLED Brand Orange Concentrate to advantage. It is pure. The quality is constant. Is easily prepared—add the water and serve. Saves refrigeration space and freights. There is no waste. The cost per gallon of juice is low and will not fluctuate. A reliable source of supply at all times.

Fill in the coupon for more complete information.

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PROFESSIONAL DIAGNOSIS
OF HOSPITAL MEALS

DOCTORS look with favor on a food like Kellogg's PEP 30% Bran Flakes, because it gives patients easy-to-digest nourishment. Here is the goodness of wheat with added bran for its laxative properties.

NURSES like to serve Kellogg's PEP 30% Bran Flakes because patients enjoy the crisp crunchiness and golden-good flavor. Kellogg's PEP is one of the many Kellogg's Cereals that help to provide variety and pleasure for hospital meals.

DIETITIANS approve of Kellogg's PEP 30% Bran Flakes because they save bother and muss in the busy kitchen. Individual packages are always ready to serve, without waste, without pre-heating. Kellogg's PEP—served in rotation with other Kellogg's Cereals—gives dietitians the variety they want.

A complete stock of Kellogg's Cereals will solve many problems for the hospital kitchen. These crisp, delicious cereals add convenience as well as pleasure to meals. Ready to serve in individual packages. Always crisp and delicious. Made by Kellogg in Battle Creek.

Kellogg's PEP
30% BRAN FLAKES

Rood treated lobar pneumonia patients by artificial pneumothorax.

1919 (Versailles Treaty)

Mellanby produced experimental rickets.

Mercurochrome introduced.

The MODERN HOSPITAL established free employment bureau.

Bachmeyer established a division of hospital administration in the University of Cincinnati's College of Medicine.

Ellsworth Huntington demonstrated that air conditions (temperature and humidity) affect postoperative death rate and presented findings in series of articles in The MODERN HOSPITAL.

Peck Memorial Hospital, Brooklyn, first hospital exclusively for middle class, opened.

American Association of Schools of Social Work founded.

American Society for the Hard of Hearing founded.

National Catholic Welfare Conference founded.

First edition of The MODERN HOSPITAL YEAR Book (later The HOSPITAL YEARBOOK) published.

Cabot's "Social Work" published.

Huldschinsky demonstrated that ultraviolet radiation cures rickets.

J. Barcroft (Cambridge) presented the first real clinical uses of oxygen room.

Special pneumonia service organized at Boston City Hospital.

1920 (League of Nations)

Goldwater presented outline of a system of instruction and apprenticeship for hospital executives.

Committee on Dispensary Development of New York City formed with Michael M. Davis as executive secretary.

Cleveland Hospital and Health Survey published.

Central food service in hospitals inaugurated by Louis Cooper Levy.

Shortage of nurses and of applicants for nursing schools reported.

Rockefeller Foundation started study by Rappleye of need for training hospital administrators.

A.H.A. established permanent headquarters in Chicago.

Professional fund-raising organizations multiplied.

Hospital orderlies' union organized in New York City.

Rochester Homeopathic Hospital installed hospital hostess.

Hospital Library and Service Bureau established, Donelda R. Hamlin, director.

Huldschinsky reported cure of tetany with ultraviolet radiation.

A.M.A. council on medical education becomes council on medical education and hospitals.

Dictating equipment used for taking surgeon's dictation on case histories.

1921 (Naval Disarmament)

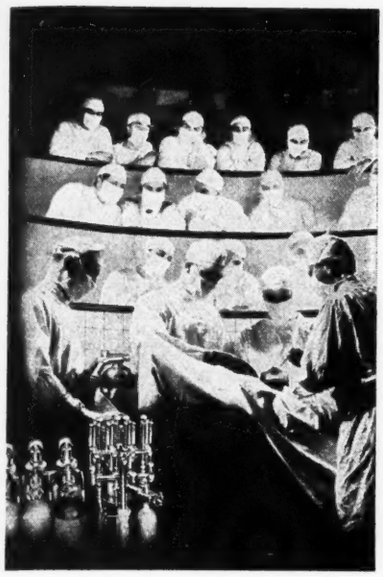
Cornell dispensary reorganized as Cornell Pay Clinic; appointment system adopted.

Blood donors service organized by the British Red Cross Society.

Ohio State Industrial Commission adopted "service at cost" policy in relation to hospital care.

Banting and Best isolated insulin.

American Protestant Hospital Association formed.



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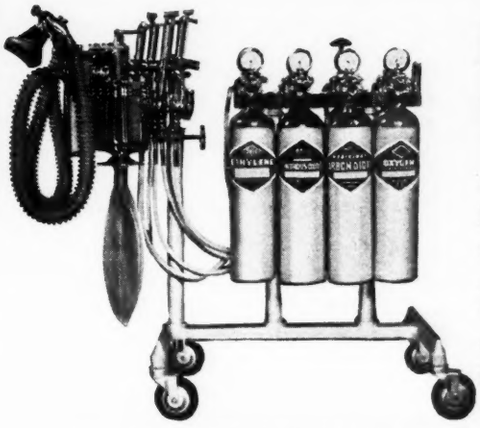
Because the condition of the patient during the operation and post-operatively is largely dependent upon accurate and easily controlled administration of anesthetics, the



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Tireless effort, ceaseless and exhaustive research by Ohio's staff of highly specialized chemists guard the purity of Ohio gases . . . year in and year out. Ever alert to changing conditions, the never ending quest continues to maintain their recognized standard of excellence . . . to keep modern and achieve even greater attainments. Cylinders are immaculately clean, inside and out. Valves are sealed to protect against confusion with empty cylinders . . . and to prevent the intrusion of dust, grease and oil.

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when you order Nitrous Oxid, Ethylene, Cyclopropane, Carbon Dixoid or Oxygen.

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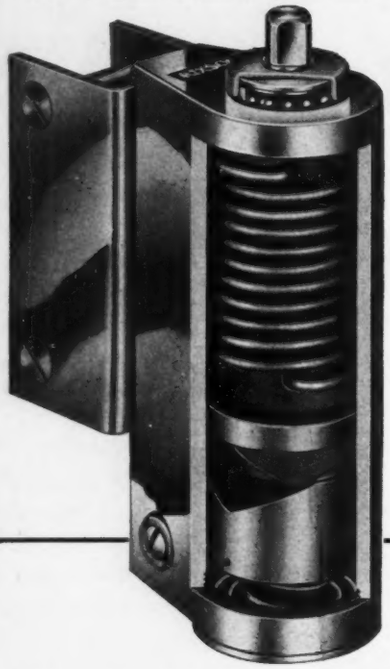

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Gentle On Both Partitions and Nerves

• Hospitals everywhere will welcome this practical device for positive, quiet control of lavatory stall doors, dwarf doors, rail gates, etc. Moderately priced, built to give years of trouble-free protection against nerve shattering door banging and broken partitions, Rixson Series 350 Checking Pivot Hinges are usable on right or left hand doors . . . or on double acting doors. By means of a unique oscillating cam arrangement, full checking control is provided all the way to closed position of door when closing from either direction of swing. A patented pressure release valve prevents strain on the partition when the door is forced shut against the checking action.

Write for catalog giving full details and illustrating the application of the ten different combinations of check brackets, top pivots and arms.

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RIXSON

BUILDERS OF HARDWARE SPECIALTIES

American Society of X-Ray Technicians formed.

Shriners started program of building hospitals for crippled children.

International Society for Crippled Children formed.

General use of iodine as an antiseptic (Pregl's solution).

Otto Warburg devised charcoal model to illustrate cell respiration.

Kahn introduced serum test for syphilis.

Bocage (France) patented the tomograph to radiograph interior body structures. Sponsored in the United States (in 1937) by Freedman (Cleveland) and Moore (St. Louis).

Hess and Unger showed sunlight possesses curative action on rickets.

Publication of first hospital number of the *Journal of the A.M.A.*

Hospital contributory schemes started by British hospitals as an outgrowth of the Cave report.

Leonard Hill developed the first oxygen bed tent.

National Hospital Day inaugurated by Foley.

Monumental report on hospital forms and records presented by Bachmeyer, Chapman and Bresnahan.

First Langley Bill appropriated $18,600,000 for provision for World War Veterans. (Second bill appropriated $17,000,000, which was available in 1922.)

Metabolism apparatus first began to appear in hospitals.

Woodyatt revolutionized the treatment of diabetes.

1922 (Irish Free State)

Four skyscraper hospitals built or in process of building.

The MODERN HOSPITAL announced a competition for architectural plans for a small general hospital.

A.M.A. survey revealed 4000 dispensaries in the United States.

Yale School of Nursing organized as a full-fledged college department with its own funds provided by Rockefeller Foundation and with Annie W. Goodrich as dean.

First radios reported in hospitals.

Goldmark-Winslow report on nursing published.

Piper employed mercurochrome in puerpeural sepsis.

Hospital Dietetic Council formed.

American Society for the Control of Cancer formed.

Group nursing used by Los Angeles County General Hospital.

American Physiotherapy Association organized.

Evidence offered to prove that vitamin A was ineffective in the prevention of rickets, thus demonstrating the presence of another fat soluble vitamin, vitamin D (McCollum, Simmons, Becker and Shipley).

1923 (Harding's Death)

Luckhardt and Carter demonstrated the anesthetic properties of ethylene and Herb and Bevan employed it as an anesthetic agent during an operation at Presbyterian Hospital, Chicago.

Dick and Dick developed innoculation for scarlet fever.

New York State Commission on Ventilation presented its report.

Standards in organization and management of out-patient departments published by the Associated Out-Patient Clinics of New York City.

School of nursing of Western Reserve University financed by an endowment of $500,000 given by Mrs. Chester C. Bolton, making it the first endowed school of nursing in the United States.

ONLY TO HUNTINGTON BELONGS THIS PRESTIGE

Keeping pace with progress in asepsis Huntington produced these Soaps and these Dispensers

The year is 1913. At the scrub up sink a surgeon reaches for a bar of dirty soap lying in a dish of grimy suds and scummy water. Hurriedly, he goes through the scrub up routine. Finished, he walks to a pan of alcohol, and as he dips hands and arms into the pan, alcohol spatters his clothes and splashes the floor. Avoiding the wet spots, he turns toward the operating room.
Such was the picture of scrub up technique before Huntington Laboratories entered the hospital field—almost twenty five years ago.

GERMA-MEDICA AND THE LEVERNIER DISPENSERS—PIONEERS IN AN IMPROVED SCRUB UP TECHNIQUE

After tireless research and experiment, Germa-Medica Liquid Surgical Soap was introduced and immediately accepted by the hospital field. For here was a soap that touched only the users' hands—greatly reducing the dangers of infection. Here was a soap made of purest olive oil, that could not irritate the most tender skin. Then came the Levernier Foot Pedal Dispensers, and scrub up technique took a giant stride. Thorough asepsis became a fact.

MORE THAN 60% OF AMERICA'S HOSPITALS RELY ON THESE SOAPS AND THESE DISPENSERS

Constant improvement through the years has given Germa-Medica and the Levernier Dispensers a position of leadership often challenged but never equalled. Today, 3 out of every 5 hospitals rely on Germa-Medica and Levernier Dispensers—proof that "what is worth while—endures."

See these products in booths 170 and 171 at the Dallas Convention.

HOSPITAL DIVISION
The HUNTINGTON LABORATORIES Inc.
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. . . AND THIS RECOGNITION FOR MERIT

For standards of excellence, the Levernier Portable Foot Pedal Soap Dispensers and the Alcohol Dispensers bear the approval of the American College of Surgeons.

BABY-SAN—THE ORIGINAL LIQUID CASTILE BABY SOAP

Baby-San is made from the finest grade of edible olive oil. It contains no fillers—no excess alkali—no free fatty acids. Hence its soothing lather brings only comfort to the baby's skin. That's why more than 75% of America's hospitals use Baby-San—dispensed from economical Baby-San Dispensers *

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The Levernier Alcohol Dispenser (illustrated above) reduces alcohol consumption as much as 75% due to the economical method of alcohol distribution. In this dispenser a quart of alcohol outlasts a gallon used under ordinary methods. As the alcohol runs off the surgeons' arms it is caught by the large stainless steel tray which prevents splashing or dripping onto clothing. Not a drop is wasted.

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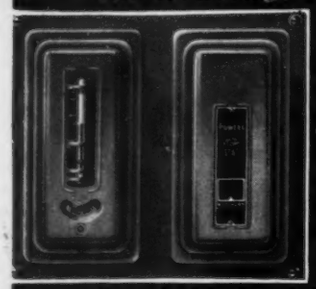
TEMPERATURE and HUMIDITY CONTROL

for Heating, Ventilating, and Air Conditioning Systems.



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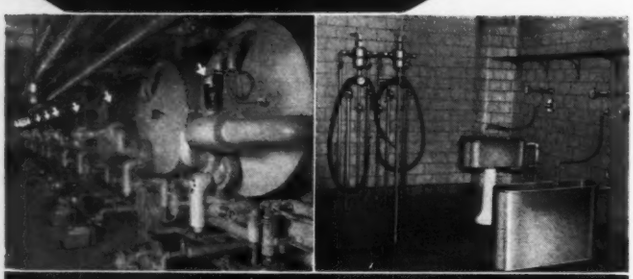

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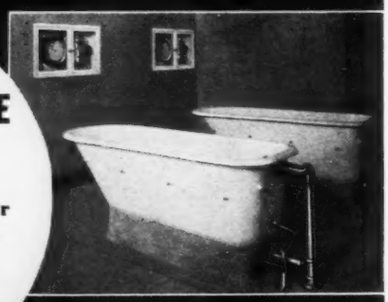
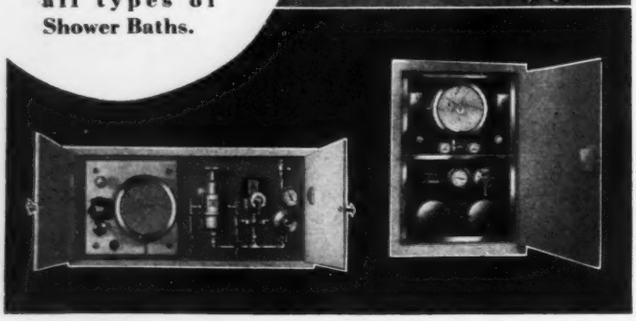
For Hot Water Heaters, Hydrotherapy and all types of Shower Baths.





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OFFICES IN 45 CITIES—SEE YOUR PHONE DIRECTORY

Rappleye established graduate school of instruction in hospital administration at Yale University.

A.H.A. held Silver Jubilee meeting.

The MODERN HOSPITAL published prize floor plans for a small community hospital.

Minimum standards of training for occupational therapy workers adopted by the American Occupational Therapy Association.

Graham and Cole introduced cholecystography (examination of gall bladder by x-rays).

Gwathmey introduced synergistic anesthesia.

Dandy evolved method of localizing brain tumors by ventricular estimation.

American Child Health Association founded.

Placement bureau established by the American Dietetic Association.

1924 (Dawes Plan)

Carbon dioxide absorption from anesthetic mixtures introduced by Waters.

"Safety" type of nonexplosive x-ray films introduced.

A.H.A. assumed responsibility and control of National Hospital Day.

A.C.S. adopted minimum standard for the treatment of fractures.

Oxygen chamber installed at Hospital of the Rockefeller Institute for Medical Research, New York.

Duke Endowment established.

American Heart Association established.

Weber's "First Steps in Organizing a Hospital" published.

Calmette vaccinated children against tuberculosis with B. C. G. (nonvirulent bovine culture).

Steenbeck, Black and Hess treated rickets by irradiating food with ultraviolet light.

Roth devised first oxygen tent with motor fan and carbon dioxide absorbing device and with a cooling coil.

Chapman's "Hospital Organization and Operation" published.

1925 (Scopes Trial)

The MODERN HOSPITAL published prize essays on "Interrelationships of Hospital and Community."

Grasslands Hospital added department of personnel and recreation.

Chicago Pneumonia Commission reported.

Hess, Weinstock, Steenbeck and Black demonstrate antirachitic properties of cholesterol and phytosterol.

Whipple and Robschat-Robbins treated experimental anemia with raw liver.

Annual increment to the population of the United States began to decline owing to continued decrease in birth rate and reduction of immigration.

Alvan Barach developed portable oxygen chamber.

Journal of the American Dietetic Association established.

1926 (Philadelphia Sesquicentennial)

Avertin (tribromethenol) introduced by Eicholz (Germany).

DeLee declared that maternity departments should not be integral parts of general hospitals.

Six year program completed by committee on dispensary development of United Hospital Fund, a program financed by the Rockefeller Foundation.

Main Kitchen, Grasslands Hospital, Valhalla, N. Y., with Vulcan All-Hot-Top Gas Ranges, Ceramic Boilers and Bake Ovens

"Gas GIVES BETTER FOOD AND SAVES $200 A MONTH"

Scores of hospitals today are modernizing their kitchens with up-to-date GAS equipment. And for two particularly good reasons:

FIRST—the savings in fuel that are brought by automatic heat control, extra-heavy insulation and modern combustion design.

SECOND—the improved quality of food, and the savings in its preparation, made possible by today's scientific application of GAS heat.

Typical of today's trend is the example of a state hospital with more than 2,500 patients, where the superintendent reports, "We changed to modern GAS ranges, to improve the diet. Our figures show we also got a fuel saving of better than $200 a month."

Investigate the improvement that GAS will show in *your* reports!

There's Nothing Like Gas For

BAKING	COFFEE BREWING
BROILING	WARMING
DEEP FAT FRYING	TOASTING
WATER HEATING	REFRIGERATION
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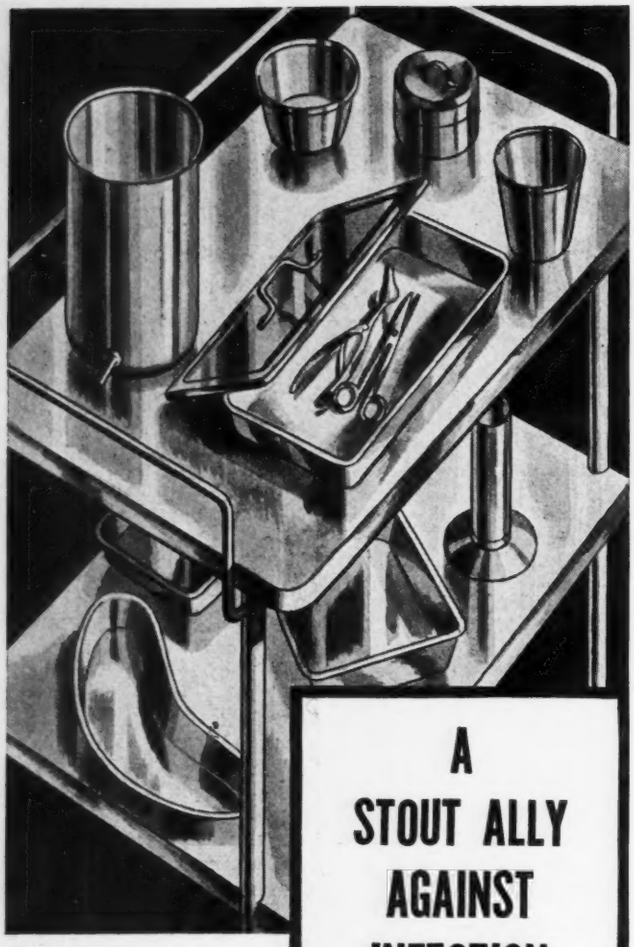

A STOUT ALLY AGAINST INFECTION

Hospital accessories made of Armco Stainless Steel meet every requirement of the most exacting sanitary code. The hard, dense, highly polished surface of this super metal offers no foothold for accumulations that breed bacteria.

Instrument trays, sponge bowls, basins, dressing jars, serum kettles, urinals, irrigation jars made of Armco Stainless are durable and as easy to clean as glass. A simple wash with disinfectant and a trip to the sterilizer is all the care they ever need.

For the kitchen there are sinks and cooking utensils made of shining Armco Stainless Steel. For the laboratory, there are tables and working surfaces, jars, bowls, trays and pans.

When next you order equipment, specify Armco Stainless Steel. Or, write to us about the equipment in which you are especially interested, mentioning, please, the name of your supply house. The American Rolling Mill Company, 2431 Curtis Street, Middletown, Ohio.

• *Visit the ARMCO display at the American Hospital Association Exposition in Dallas, Sept. 26-30—booths 178-179-180. There'll be some interesting things to see.*

ARMCO

STAINLESS STEEL

American Association of Psychiatric Social Workers formed.

Committee on Grading of Nursing Schools formed.

Minot and Murphy introduced raw liver diet in pernicious anemia.

Vogel introduced ninhydrin test for pregnancy.

Collop isolated parathyroid hormone.

Ferry and Fisher investigated serology of measles.

Alvan Barach devised first modern type of oxygen tent.

A.C.S. appointed a committee on medical motion pictures and began approving such pictures; also appointed a committee on industrial medicine and traumatic surgery. The latter formulated minimum standards and began surveys in 1931.

Discovery of the pellagra-preventive factor.

Convincing evidence presented of the dual nature of vitamin D.

1927 (Lindbergh)

The MODERN HOSPITAL published a reading course for hospital executives.

Ponton's Alphabetical Nomenclature and Manual of Medical Records published.

Ruth Tunnicliff introduces serum against measles.

"Curriculum for Schools of Nursing" published by National League of Nursing Education (2d Edition).

McElvain (University of Wisconsin) introduced metycaine as a new spinal anesthetic to supplement novocain introduced in 1905 by Einhorn and Braun and spinocain introduced by Pitkin.

A.M.A. published first list of hospitals approved for residencies in specialties (270 hospitals; 1699 residencies).

American Dietetic Association approved outline of a course for student dietitians.

Sheard and Sanford (Mayo Clinic) developed photolometer to provide photo-electric methods of analysis of solutions.

1928 (Graf Zeppelin)

"Nurses, Patients and Pocketbooks," published by the Committee on Grading of Nursing Schools.

Association of Record Librarians of North America formed.

Department of hospital service of the Canadian Medical Association established.

Edward F. Stevens' "American Hospital of the 20th Century" published.

"The Small General Hospital" published by the Duke Endowment.

Noguchi discovered pathogen of trachoma.

Avertin used as rectal anesthetic by Willstaetter and Dinsberg (Germany).

Endotracheal anesthesia popularized by Magill (London).

Medical services division of Julius Rosenwald Fund established.

Extensive research and development of fever therapy for treating gonorrhea, syphilis, chorea and undulant fever.

Serum center opened by Detroit Department of Health.

Standardization of surgical dressings announced by division of simplified practice of U. S. Department of Commerce.

Stumpf (Munich) developed modern form of kymograph for radiology, which he perfected in 1931.

A.M.A. adopted "essentials" of a registered hospital.

AT ANNAPOLIS MAGIC CHEF SCORES AGAIN

This giant, streamlined, stainless steel MAGIC CHEF was recently installed in historic Bancroft Hall at the United States Naval Academy. It is operated by twenty-seven cooks to feed twenty-three hundred midshipmen.

This unit weighs over sixteen tons, with more than a ton of stainless steel used for its glistening enclosed body and elevated shelves.

Magic Chef fills all Heavy Duty cooking needs. Suitable equipment for the smallest lunchroom to the largest hotel or institution.

Why not let one of our consulting specialists come and talk over your cooking problem? From his knowledge and experience he is able to offer suggestions to help you—without either cost or obligation on your part. Just drop a line or phone our nearest branch.

Beyond the gas mains use Magic Chef with Pyrofax tank gas (east of Rockies).

GAS IS YOUR CLEAN, QUICK, ECONOMICAL SERVANT

THE GAS RANGE WITH THE FAMOUS RED WHEEL

Magic Chef

AUTOMATIC HEAVY DUTY COOKING EQUIPMENT

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present in every home as in your hospital, almost any

DOCTOR TURNS INVENTOR

Unfortunately even the most painstaking mothers may

● Forty-four years ago a practising physician suspected the old-fashioned, narrow-neck nursing bottle as the hiding place for germs which were causing intestinal disturbances in spite of competent medical care.

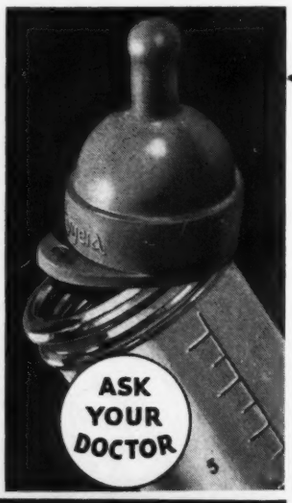
So he became an inventor and in 1894 took out the first patent on a nursing bottle designed for *safety*. A nipple soon followed carrying out the same idea. After that it was tough sledding for awhile. Money was scarce . . . organization wasn't easy . . . a lot of time and energy were necessary. But the doctor carried on because he believed in his invention.

Today HYGEIA NURSING BOTTLES AND NIPPLES are endorsed by doctors everywhere; are used by over 500 hospitals and thousands of mothers because they, too, believe they are the most sanitary and germ-proof equipment possible to buy.

You can recommend HYGEIA NURSING BOTTLES AND NIPPLES with confidence that even the most careless of mothers will find them *safest—because they are easiest to clean.*

ASK YOUR DOCTOR has been the theme of Hygeia advertising for 30 years. We believe in placing full responsibility on the attending physician. 41,000,000 Hygeia advertisements each month in 19 publications carry this message.

HYGEIA COSTS LESS THAN ANY OTHER BABY NECESSITY



HYGEIA NURSING BOTTLE AND NIPPLE

Baptist Memorial Hospital, Memphis, Tenn., opened physicians' office building as part of hospital.

1929 (Market Crash)

International Hospital Association formed at Atlantic City (organization perfected two years later).

Great Britain authorized reorganization of poor law hospitals to become county council hospitals accepting acute patients.

Cooper, Edwards, Rosenstein, Walter and Peizer first described 32 types of pneumococcus.

Lucas and Henderson (University of Toronto) described the anesthetic properties of cyclopropane, originally prepared in 1882 by Freund.

Sodium amytal introduced as an anesthetic.

First grading of nursing schools.

Rockefeller Foundation study on hospital administration as a career by Michael M. Davis published.

Cleveland Clinic disaster caused by explosion of x-ray films with loss of 128 lives.

Sale of inflammable x-ray films prohibited in New York State.

Many nursing schools closed because of oversupply of nurses, while enrollment of remaining schools increases.

Speech clinic established at Children's Memorial Hospital, Chicago.

Clarence A. Neymann reported original work on artificial fever produced by high frequency currents.

Phillip Drinker made the first physiologic suction apparatus for artificial respiration.

Baylor Hospital, Dallas, Tex., started first important hospital care insurance plan.

1930 (London Naval Treaty)

U. S. Veterans' Administration formed to succeed Veterans' Bureau and two other agencies.

National Executive Housekeepers Association formed.

White House Conference on Child Health and Protection called by President Hoover.

Baker Memorial building for patients of moderate means opened at Massachusetts General Hospital.

Publication of Philadelphia Hospital and Health Survey.

Drinker-Shaw respirator introduced.

Yudin (Russia) transfused blood from cadaver to live patient.

Radium deposits discovered on Great Bear Lake just below the Arctic Circle, Canada, resulting in fall in the price of radium from about $70,000 a gram in 1927 to $25,000 a gram in 1938.

Discovery that certain fatty acids were essential (linolic and linolenic).

Initial laboratory work on vinethene (divinyl ether) done by Leake and Chen (University of California).

Lundy introduced nembutal (pentobarbital sodium) as an anesthetic.

Percaine (nupercaine) introduced as an anesthetic by Jones (London).

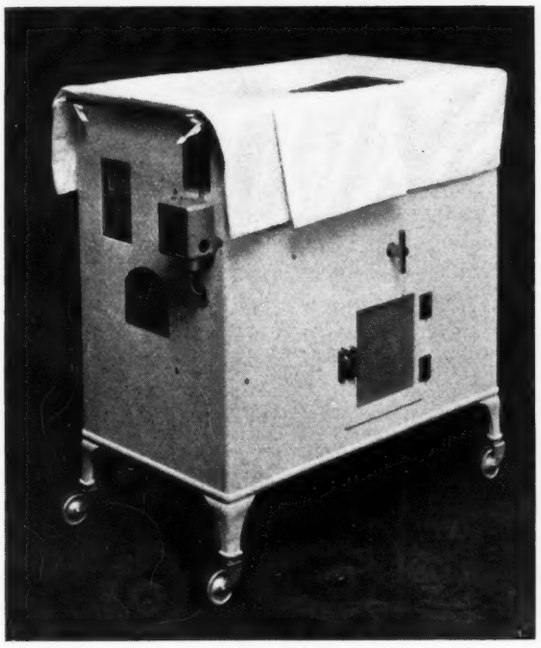
1931 (Hoover Moratorium)

Canadian Hospital Council established.

Department of Hospital Service of Canadian Medical Association assumed duty of approving hospitals for internship.

National Association of Nurse Anesthetists formed.

POLL Incubators



Patented

Built on 43 Years of Research and Experience

READ what Dr. Bocock and Sister Regina Say!

DR. EDGAR A. BOCOCK, Superintendent, Gallinger Municipal Hospital, Washington, D. C., writes: "After a careful survey of the field by our Chief Obstetrician, we were convinced that the Poll Incubator was a very superior article. This impression has been more than confirmed by our experience with the fifteen pieces of apparatus that were purchased and which have been steadily in use in this institution. These incubators have at all times rendered splendid satisfaction, and we are very glad indeed to tell you that they have met all of our expectations in the field for which they are intended."

SISTER ALICE REGINA, Superintendent, St. Mary's Hospital, Passaic, New Jersey, writes: "On May 9, the Premature Kasper "Quadruplets" were born at Saint Mary's Hospital, Passaic. At that time we had only two small electrical incubators on hand and we were compelled to double up for the first few hours. Mr. George Poll, of Poll Incubator Company, Brooklyn, N. Y., relieved the situation by forwarding to us four modern incubators, simplified and electrically heated with thermostat. We would recommend this equipment to other hospitals, considering new installations. We would say for safety, comfort, simplicity and perfect satisfaction, 'There Is None Better.' "

The Poll Incubator has many unique features and is designed for the care of normal as well as premature infants. It is a necessity in every maternity ward and nursery. The Incubator is automatically controlled, has direct moisture and can be regulated at any temperature desired. It is equipped with thermostatic heat control and ventilators allowing for air circulation. Made of metal construction, equipped with a removable tiltable bassinet and non-spillable monel water receptacle. All trimmings are chrome plated. It is mounted on 3 in. swivel rubber tired casters and may be obtained finished in any color.

Always Insist on

POLL INCUBATORS

Manufactured by GEO. POLL & CO., Inc. (Established 1895)

1920-1924 Harman Street **Brooklyn, N. Y.**

Everything that goes into the baby's formula is carefully selected, boiled, prepared and tested. The nursing bottles in which the baby's food is served should be just as carefully chosen, thoroughly sterilized and satisfactorily proven.

PYREX Brand Nursing Bottles are manufactured to withstand hot and cold water shocks necessary in sterilizing, chilling and warming, without the danger of breakage. Six-sided outside for easy holding and smoothly rounded inside for easy cleaning. Guaranteed for two years against breakage from quick temperature changes. Narrow or wide mouth bottles in both the 8 ounce and 4 ounce sizes.

Distributed by Owens-Illinois Glass Company

PYREX
BRAND
NURSING BOTTLES

International Hospital Association organized at Vienna.

Emma Pendleton Bradley Home dedicated as first hospital for children's behavior disorders.

Blood donors licensed by New York City health department.

Deutsch Convalescent Serum Center opened at Michael Reese Hospital, Chicago.

First million volt deep therapy apparatus for cancer treatment installed in New York Memorial Hospital, New York.

Massachusetts began state pneumonia control program.

1932 (Krueger Suicide)

Waters and Schmidt (University of Wisconsin) sponsored the clinical use of cyclopropane.

Standard Classified Nomenclature of Disease published.

"Medical Care for the American People," its final report, published by Committee on the Costs of Medical Care.

Inclusive rate plans inaugurated at Evanston Hospital and University Hospitals, Cleveland.

Council on community relations and administrative practice formed under the chairmanship of Goldwater.

Edward Hines Jr. Veterans' Hospital established cancer center for World War veterans of Middle West.

Canadian Nurses' Association published survey of nursing education.

University of Chicago Clinics established health service for staff and employes.

Milwaukee Medical Society established bureau of blood donors.

Cleveland inaugurated central committee on dispensary admissions.

Commission on Medical Education presented its final report.

1933 (Bank Holiday)

American College of Hospital Administrators established with Wordell as president.

Accrediting program for record librarians begun by Association of Record Librarians. Courses at Massachusetts General and Rochester General hospitals accredited the first year.

Advisory Board for Medical Specialties established.

First institute on hospital administration held at University of Chicago.

Hospital finance corporation formed in Cleveland.

A.H.A. council on community relations endorsed hospital care insurance and set up standards.

Second grading of nursing schools released.

Campaign for eight hour day for nurses begun by A.N.A.

Gelfan and Bell used vinethene (divinyl) on themselves. This anesthetic studied further by Leake, Knoefel and Guedel and also by Goldschmidt, Ravdin and others at the University of Pennsylvania.

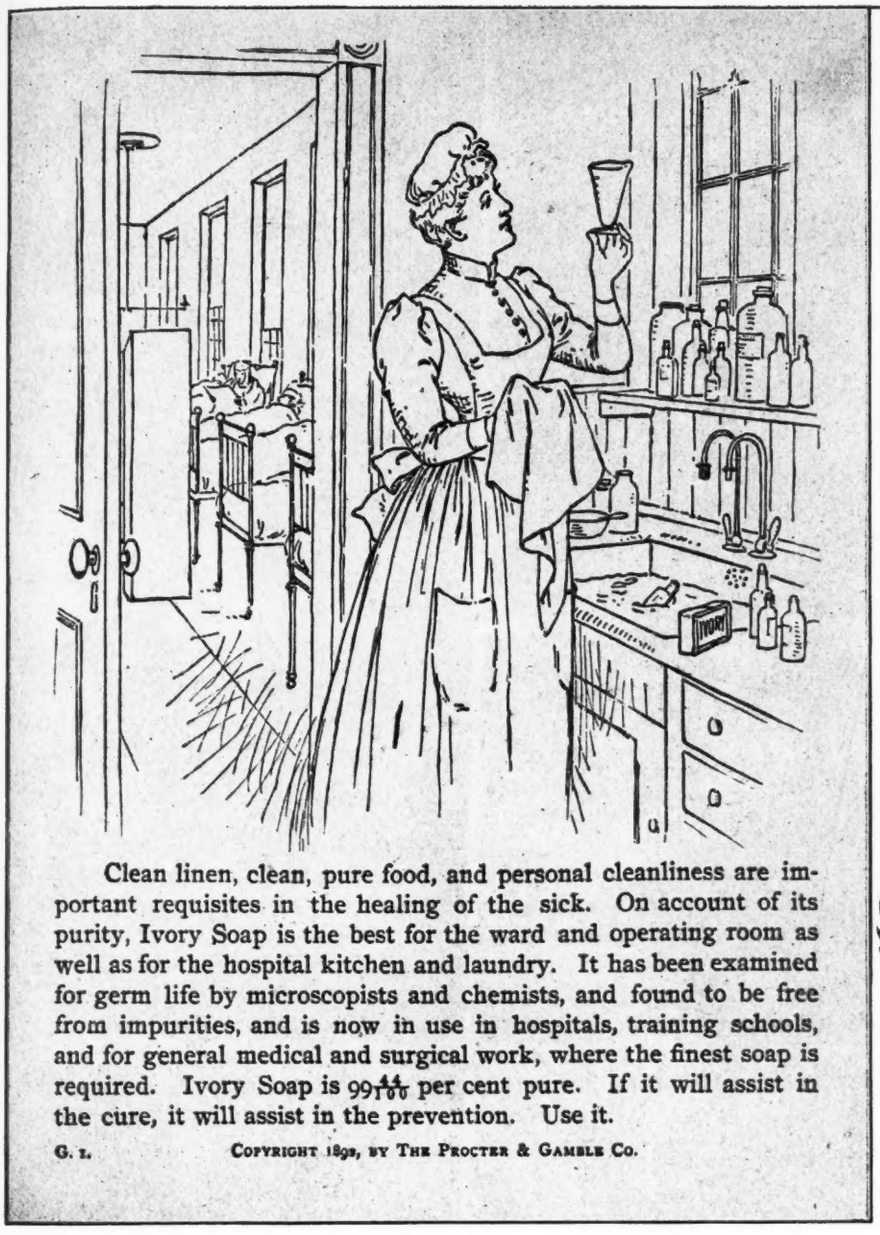
Fretwurst (Germany) introduced evipal (evipan sodium) as an anesthetic.

Chicago amebic dysentery epidemic aroused widespread interest in dangers of plumbing cross-connections.

Inauguration of F.E.R.A. medical service under Rule No. 7 and unsuccessful effort by hospitals to obtain federal aid.

Publication of "Chronic Illness in New York City," a study made for the Welfare Council of New York by Mary C. Jarrett.

Ohio bill to compensate hospitals for care of indigent automobile accident cases passed.



Clean linen, clean, pure food, and personal cleanliness are important requisites in the healing of the sick. On account of its purity, Ivory Soap is the best for the ward and operating room as well as for the hospital kitchen and laundry. It has been examined for germ life by microscopists and chemists, and found to be free from impurities, and is now in use in hospitals, training schools, and for general medical and surgical work, where the finest soap is required. Ivory Soap is $99\frac{44}{100}$ per cent pure. If it will assist in the cure, it will assist in the prevention. Use it.

G. 1. COPYRIGHT 1892, BY THE PROCTER & GAMBLE CO.

One of a series of Ivory Soap advertisements appearing in magazines back in the "gay 90's." The story it tells of Ivory's purity and gentleness has lost none of its meaning for hospital authorities.

EVEN IN THE 80's

hospitals relied upon Ivory Soap

IN the early 80's, shortly after Ivory Soap was introduced and first advertised, many physicians used and recommended it for the care of sensitive skins. And through the influence of these medical authorities, Ivory soon was well established in many hospitals.

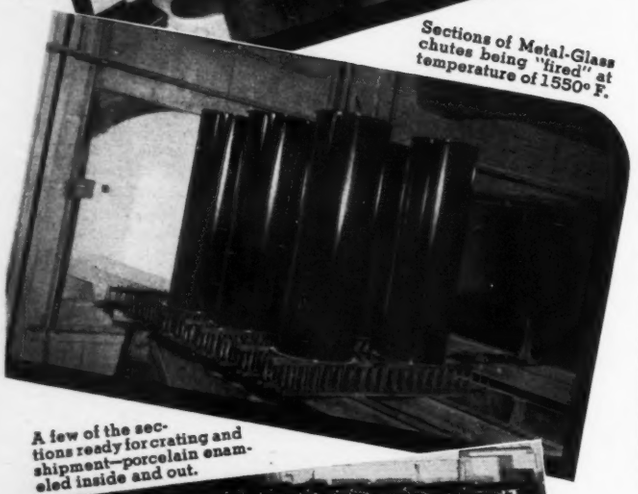
Today, Ivory's widespread use in American hospitals is indicative of the respect it has earned with hospital authorities during the past 59 years. Ivory's almost universal hospital acceptance speaks volumes for its outstanding purity and gentleness.

PROCTER & GAMBLE, Branch offices in principal cities, General offices—Cincinnati, O.

IVORY SOAP

Metal · Glass
CLOTHES CHUTES
for South America

Below are a few sections of newly fabricated chutes. Note the welded seams.



Sections of Metal-Glass chutes being "fired" at temperature of 1550° F.

A few of the sections ready for crating and shipment—porcelain enameled inside and out.

Metal-Glass chutes are used all over the world. Here are three plant views of a shipment going to South America. No other chute is so dependable—so durable—so friction-free and snag-proof for textiles. Send for complete literature and a list of installations near you where you may see and inspect a Metal-Glass chute for yourself.

PORCELAIN PRODUCTS CO.
1427 South 55th Court · Cicero, Illinois

Burgess and Burgess developed a small simplified open top oxygen tent.

Hess (Chicago) perfected infant oxygen therapy unit with flow-meter to control oxygen concentration.

Hospital council of Essex County, New Jersey, started first community-wide hospital care insurance plan.

1934 (Drought)

Barach proposed use of helium as a therapeutic gas in human beings.

Herrmann and Reid (Cincinnati) reported original investigation on treatment of vascular disease by alternate suction and pressure.

Boothby (Rochester, Minn.) developed a miniature oxygen chamber for infants.

A.M.A. adopted 10 principles to govern new forms of medical practice.

Yale School of Nursing required college degree for admission.

Voluntary health insurance and hospital care insurance endorsed by American College of Surgeons.

Goldwater named New York City commissioner of hospitals and began notable transformation of a politically-ridden demoralized department.

Ohio Hospital Association reorganized on an institutional membership basis with four regional councils.

Graduate course in hospital administration at the University of Chicago announced.

Hospital Obstetric Society of Ohio organized.

"Nursing Schools—Today and Tomorrow," final report of Committee on the Grading of Nursing Schools, published.

Development of protamine insulin for diabetes.

1935 (Social Security)

MacEachern published "Hospital Organization and Management."

National health survey inaugurated by U. S. Public Health Service.

Chicago Hospital Council formed.

A.M.A. adopted "essentials" for approved examining boards in specialties.

Tabern and Volwiler introduced pentothal sodium as an anesthetic; its clinical use presented by Lundy.

1936 (Spanish Civil War)

National League of Nursing Education published "Essentials of a Good School of Nursing" and "Essentials of Good Hospital Nursing Service."

Basis of relationship between radiologists and hospitals accepted.

More than 25,000,000 visits made to 663 out-patient departments reporting to U. S. Public Health Service.

Compulsory health insurance act passed in British Columbia.

Pond developed palm-print method of infant identification.

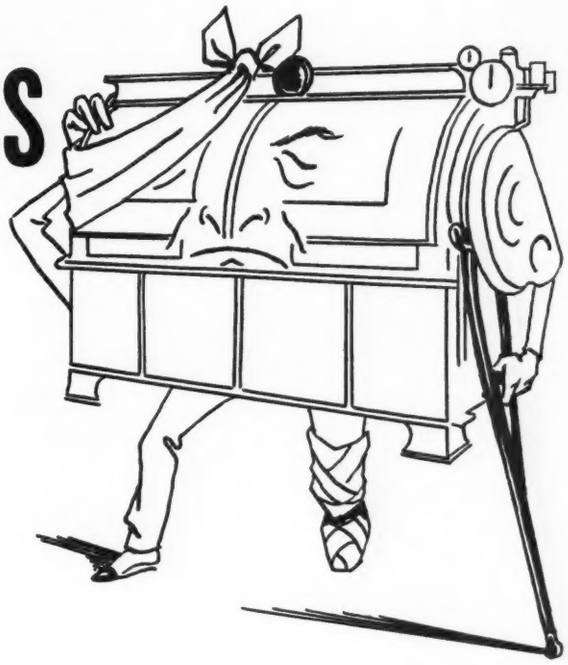
Hart demonstrated danger of air-borne infections in the operating room.

Corey Hill Hospital, Brookline, Mass., completely air conditioned.

A.M.A. inspected schools for occupational therapists, physical therapists and laboratory technicians and adopted "essentials" for each.

Julius Rosenwald Fund brought to a close its general

Some hospitals keep INVALIDS in the LAUNDRY...



does yours?

"Sick" equipment—"aged" machinery that has outworn its usefulness in hospital laundries is as much care and expense as a non-paying invalid.

That is why many hospital laundries are running at a loss. Old, out-dated equipment cannot work efficiently. It costs more to operate. It takes longer to do a poorer job. It destroys good linen—and replacements are costly!

You'll find that it actually *pays* to install new, efficient Smith-Drum equipment—laundry equipment that in every case, is faster and cheaper to operate, that does perfect work.

Actually, in the end, new equipment costs NOTHING—for savings in operation, labor and repairs will pay the cost for a complete plant modernization. Ask us for PROOF!

SMITH, DRUM & COMPANY

PHILADELPHIA, PA.

MANUFACTURERS OF A COMPLETE LINE OF MODERN LAUNDRY EQUIPMENT

medical program, making a grant to the committee on hospital service and another to the committee on research in medical economics. Rorem appointed director of former and M. Davis of latter.

Synthesis of vitamin B_1.

National League of Nursing Education voted to accredit schools of nursing.

1937 (Sitdown Strikes)

"A Curriculum Guide for Schools of Nursing" (3d edition) published by National League of Nursing Education.

A.H.A. reorganized to provide house of delegates, six councils (increased in 1938 to seven) and to coordinate research under councils.

Moline Public Hospital, Moline, Ill., air conditioned throughout except for kitchen and storerooms.

Committee of 430 physicians recommended improvements in health service.

Occupancy in American hospitals reached highest figure ever recorded by A.M.A.

A.C.H.A. published "University Training for Hospital Administration Career" and directory of members.

Arkansas adopted state aid to voluntary hospitals.

Blood bank started at Cook County Hospital, Chicago.

Labor unrest manifested among hospital employes; unions formed in several cities.

The MODERN HOSPITAL announced new comprehensive liability insurance policy available to hospitals approved by A.C.S.

New York Hospital Survey published.

Synthesis of nicotinic acid discovered as pellagra-preventive factor of the vitamin B complex.

American Foundation published "American Medicine—Expert Testimony Out of Court."

1938 (Austrian Anschluss)

Approval program for hospital care insurance inaugurated with 40 approved plans.

Rentschler-James process of sterilization by ultraviolet radiation announced.

New and more stringent maternity regulations adopted by New York and Chicago health departments.

National Health Conference in Washington called by Josephine Roche to discuss a national health program.

Clinical use of helium during human anesthesia presented by Lahey Clinic group.

MacEachern chosen president of the International Hospital Association.

Pennsylvania, Philadelphia and American Medical Associations attempted to exclude radiology, pathology and similar services from the scope of hospital service and from hospital care insurance plans.

A.H.A. trustees adopted principles defining relations of hospitals and doctors and pointed out that performance of diagnostic and therapeutic procedures by staff members is the practice of medicine in hospitals but not by hospitals.

Maggot paste prepared for clinical use.*

*The author acknowledges, with thanks, valuable aid given to him by Dr. G. Harvey Agnew, Dr. M. Herbert Barker, Dr. E. M. Bluestone, Anna E. Boller, H. V. Cadwell, Dr. Fred G. Carter, Dr. John S. Coulter, Dr. S. S. Goldwater, Donelda R. Hamlin, Marcella R. Lehman, Dr. H. M. Livingstone, Dr. Basil C. MacLean, Ada Belle McCleery, Dr. C. W. Munger, Charles F. Neergaard, A. O. Osterling, Dr. T. R. Ponton, L. M. Prime and Dr. W. S. Rankin.

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THE new OEM HELIUM-OXYGEN REBREATHER comes to your hospital. Helium-Oxygen with pressure is now effectively used in the treatment of severe Asthma, obstructive lesions of the Trachea and Larynx in adults and children.

HELI-OX also administers OXYGEN under positive pressure.

HOSPITALS everywhere find the Barach-Thurston OXYGEN TENTS both Junior and Senior models their most dependable equipment. Even after many years of constant and heavy usage the Barach-Thurston Tent has given them that extra element of "EXTRA PERFORMANCE" plus the vital characteristic of ruggedness—EXPECT PERFORMANCE—then choose a BARACH-THURSTON tent.

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247 E. 56th St. New York, N. Y.

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New York City

Gentlemen:

I want all the facts and interesting details concerning your NEW equipment HELI-OX REBREATHER and information concerning the Barach-Thurston OXYGEN tents—Also send me your FOLIO of REPRINTS.

Name .....

Address .....

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ERTRON

for

Measurable and Demonstrable Objective Improvement in ARTHRITIS

Ertron—high dosage vitamin D in special form—not only leads to rapid subjective relief in arthritis, but produces x-ray demonstrable objective improvement as well. Calcium salts are deposited in rarefied bone, and articular cartilage is reconstructed. Exostoses, when present, are resorbed. These favorable changes are reflected in the sedimentation index, a prognostic procedure that measures the degree of response to Ertron therapy. Ertron has been used with outstanding success in all types of arthritis; in many cases it has produced beneficial changes after every other therapeutic measure had failed.

Reprints of published articles, together with hospitals' special price list, will be furnished on request.

NOTE THIS CLINICAL BACKGROUND

Dreyer, I., and Reed, C. I.: The Treatment of Arthritis with Massive Doses of Vitamin D, Arch. Phys. Therapy 16:537 (Sept.) 1935.

Livingston, S. K.: Vitamin D and Fever Therapy in Chronic Arthritis, Arch. Phys. Therapy 17:704 (Nov.) 1936.

Steck, I. E.: Clinical Experience in Treatment of Arthritis with Massive Doses of Vitamin D, Illinois M. J. 71:243 (March) 1937.

Farley, R. T.: Management of Arthritis, Illinois M. J. 71:74 (Jan.) 1937.

●

Reprints available to physicians on request.

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332 South Michigan Avenue, Chicago

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GOOD HOSPITAL FOOD
starts with
GOOD KITCHENS....

good kitchens start with Duparquet Equipment

Good food is good business for hospitals from the standpoint of patients and the public. The experience gained from planning kitchens for many leading hospitals is available through our planning bureau. Our specialists have solved or helped to solve some of the most stubborn food service and equipment problems.

SOME RECENT HOSPITAL INSTALLATIONS

Bronx Eye & Ear Hospital, Bronx, N. Y.

City County Hospital, Houston, Texas

Good Samaritan Hospital, Suffern, N. Y.

Hospital for Chronic Diseases, Welfare Island, New York City

Jewish Sanatorium and Hospital for Chronic Diseases, Brooklyn, N. Y.

Nurses Home, Welfare Island, New York City

Duparquet equipment, made in our own factory, plus the experience of this organization, is a combination that means EFFICIENT KITCHENS. Call or write one of our three offices.

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MAJOR HOSPITAL TRENDS

Scientific and Clinical

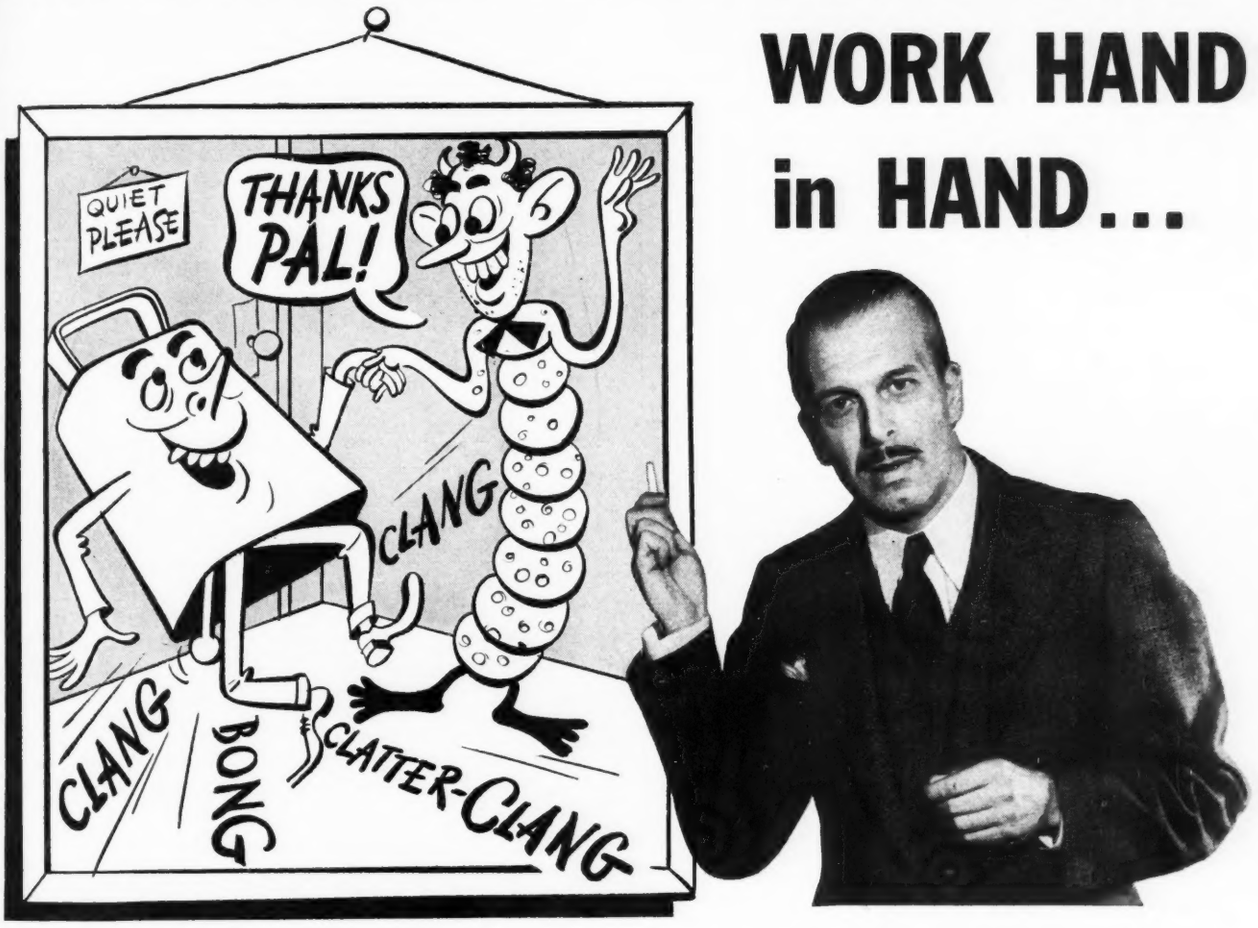
1. Expansion of laboratory facilities and introduction or extension of departments of blood chemistry, basal metabolism, histology, bacteriology, serology, radium, electrocardiography, microphotography, animal research.
2. Increased use of x-ray for diagnosis and development of x-ray therapy.
3. Vast extension of dietotherapy, especially vitamin therapy.
4. Decrease in scarlet fever, typhoid fever, diphtheria, smallpox and other infectious diseases with important effects on contagious hospitals and on pediatric services. Exit of "pest house." Acceptance of contagious disease patients in general hospitals and development of aseptic nursing technic.
5. Increased contribution of the hospital toward the reduction of mortality rates generally.
6. Widespread application of principles of asepsis to medical as well as surgical problems, especially contagious diseases, tuberculosis.
7. Recognition by staffs of advanced general hospitals of the significance of psychiatric diagnosis as part of the function of general medical service. Development of new clinical methods in treatment of mental patients (fever therapy, shock treatment, etc.).
8. Thoracic surgery for pulmonary tuberculous patients in general as well as tuberculosis hospitals.
9. Increase in necropsy rate.
10. Increase in medical specialties with important effects on staff organization (both in-patient and out-patient).
11. Spread of serum treatment of pneumonia.
12. Large increase in number of anesthetics available.
13. Development of gas therapy, including oxygen therapy, anesthesia and resuscitation.
14. Great improvements in all types of surgery.
15. Widespread use of intravenous therapy in hospitals.
16. Widespread use of blood transfusions.
17. Finding, possibly for the first time, of a successful form of bacterial chemotherapy, namely, prontosil and its later modification, protolin or sulphanilamide. Characterized by a careful student of the subject as "one of the major medical advances of our generation."
18. Great growth of physical therapy.
19. Growth of occupational therapy in general hospitals as well as hospitals for nervous and mental patients.
20. Life saving and life prolonging for pernicious anemia patients through liver therapy.
21. Growth of dental services in hospitals.
22. Improved methods of sterilization.
23. Speech clinics in hospitals.
24. Increased use of heliotherapy.
25. Hospitals used more for diagnosis and observation.

Educational and Professional

1. Development of educational and experience qualifications for medical specialists.
2. Vast extension of internships and residencies in hospitals and of standards for hospitals offering approved internships and residencies.
3. Growth of university courses for training of hospital

MICROBES AND DECIBELS *

WORK HAND in HAND...



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IT is a well-known medical fact that unnecessary noise can easily make patients weak and nervous . . . reduce their resistance to dangerous disease germs.

There is no reason why patients should be exposed to this extra risk. For J-M Sound-Control Materials, applied in accordance with the recommendations of J-M Acoustical Engineers, blot up noise at its source . . . bring permanent, restful quiet to any hospital, old or new.

In every way, J-M Sound-Control Materials are especially suited for hospital use. Unusually fire-resistant and sanitary, they are easily cleaned with plain soap and water. Constant washing or even repainting won't affect their high sound-absorbing efficiency.

Patients appreciate the extra comfort provided by freedom from noise . . . and their satisfaction with your service is a real and valuable asset. Our booklet, "Johns-Manville Methods of Sound Control for Quieting Hospitals," tells how you can do away with needless noise wherever it occurs. For your copy, write Johns-Manville, 22 E. 40th St., New York City.

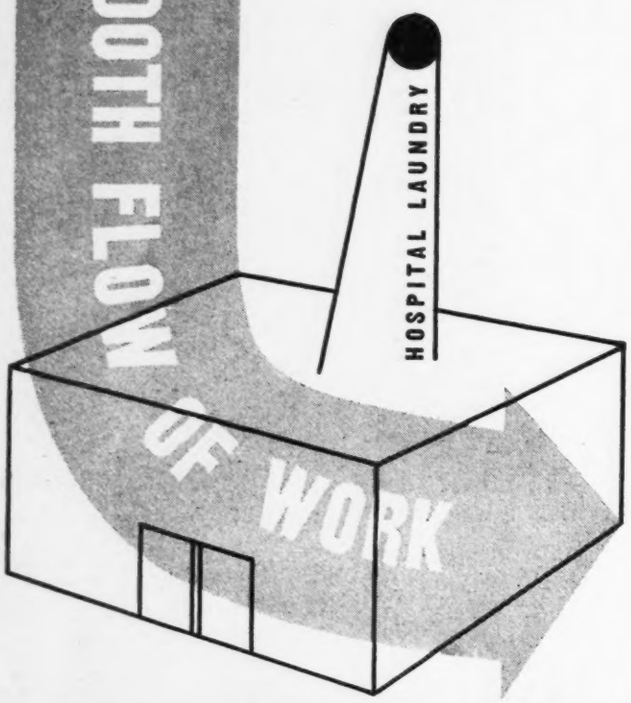
** The decibel is the unit used in measuring the intensity of sound. Everyday hospital noises—the drone of voices, telephone bells, footsteps, etc.—tear through nervous systems overwrought from disease . . . seriously retard recovery.*

ACTUALLY IT COSTS NO MORE TO USE THE BEST ACOUSTICAL MATERIALS

JM PRODUCTS **Johns-Manville**

SOUND-CONTROL MATERIALS AND ACOUSTICAL-ENGINEERING SERVICE

ASK HOFFMAN TO PLAN



IN YOUR HOSPITAL LAUNDRY

• MINIMUM LABOR & SUPPLIES
• MAXIMUM LIFE FOR LINEN

From an operating standpoint, the institutional laundries installed by Hoffman are notably successful. Although the requirement of moderate initial investment is carefully borne in mind, Hoffman provides ample washer facilities to permit proper classification of the work. This feature assures balanced productive capacity, avoids overloading or underloading machines—saves on supplies and lengthens the life of linen. Hoffman laundry layouts keep the work moving smoothly forward without retracing of steps—provide highest output with a minimum of labor to tend the machines. Call Hoffman to diagnose your laundry's ills!

APPROVED AMERICAN COLLEGE OF SURGEONS

U. S. HOFFMAN
MACHINERY CORPORATION
107 FOURTH AVENUE · NEW YORK, N. Y.
COMPLETE LAUNDRY EQUIPMENT
SERVICE FOR THE INSTITUTION

administrators linked with definite educational apprenticeships.

4. Development of professional status of nurses and allocation to them in hospitals of many duties which formerly were considered as medical.

5. Enrichment of nursing curriculum and improved methods of educating nurses, stimulated and guided by curriculums of N.L.N.E. of 1917, 1927 and 1937.

6. Increased use of graduate nurse staffs in hospitals.

7. Higher standards of admission to schools of nursing (grammar school only was usual requirement in 1913; now all must have high school graduation and many offer one or more years beyond high school).

8. Increased use of ward aids and ward clerks.

9. Development of educational standards for dietitians, laboratory and x-ray technicians, occupational therapists, social service workers, physical therapists, medical record librarians, nurse anesthetists and similar groups.

10. Development of accrediting and registration programs for technicians, medical record librarians.

11. Growth in size and influence of American College of Hospital Administrators and recognition of its educational leadership.

12. Organization of national (and often local or regional) associations representing nearly all the adjunct personnel employed in hospitals.

13. Increased use of graduate pharmacists in hospitals on part-time or full-time basis.

14. Development of other new types of trained workers in hospitals including hospital housekeepers, hostesses, librarians.

Administrative

1. Development of a literature on hospital administration and construction through the writings of outstanding leaders.

2. Rapid expansion in care of private patients in hospitals; growth of private and semiprivate accommodations with important effects on hospital economics and professional income. Increase in number of small wards and decrease of large wards.

3. Growth of large medical centers in metropolitan areas; association of special with general hospitals for teaching and administrative purposes.

4. Increased attention to personnel management in hospitals and serious attempt for first time to adapt best practices of industry to hospital personnel problems.

5. Development of skilled consulting services on construction, administration, public relations and fund raising, and of educational activities of hospitals.

6. Routine utilization by general hospitals of the principles and methods of group clinical practice in order to conform to the requirements of the A.C.S. and the A.M.A.

7. Increased emphasis on personal factors in the care of the sick necessitated by the enlargement of hospital facilities and the multiplication of the number of persons with whom the patient comes into contact.

8. Changed factors influencing the location of hospitals resulting from improved methods of transportation, air conditioning and air control and similar factors.

9. Increased per capita cost of maintaining patients in hospitals resulting from the vast expansion of service rendered, reduction of length of stay and increase of training required for personnel.

WE HAND IT TO YOU to KNOW *the difference*

• WHAT IS SALUBRA?

It is a wall covering with a surface equivalent in protective value to six coats of paint on a zinc base . . .
It is washable—It is fadeless . . .

• WHY USE SALUBRA?

Because its colors, textures or patterns transform the institutional feeling of a room and give it a cheerful friendliness—without infringing on strict hospital standards . . .

• WHAT ARE ITS ADVANTAGES?

—COST

Salubra's initial cost is no higher than that of good paint.

—ECONOMY

Salubra's permanency eliminates the expenditures of periodic redecorations.

—SANITATION

Salubra is scrubbable — it can be disinfected — it does not retain odors —it is vermin proof.

—UPKEEP

It is the easiest and simplest — it is cleaned with scrubbing brush, soap and water.

—CONVENIENCE

Salubra eliminates the annoyance of offensive odors of paint — it permits the use of a room the same day it is decorated — it avoids loss of income caused by non-occupancy of beds.

—PRACTICABILITY

Salubra maintains the freshness of new walls—it prevents the appearance of fire cracks — it can be patched without detection.

between

well decorated and colorful walls in a patient's room

and

the monotony of plain painted walls with their bare institutionalism.

• • •

COLOR in hospital interiors has not only an esthetic value — it is also a psychological power of therapeutic importance, recognized by medical authorities.

SALUBRA Wall coverings offer a safe medium for introducing color in hospitals and possess advantages not found in any other wall treatment.

PROOF

• 50 years of background
• International acceptance
• Hundreds of installations the world over

won't fade **Salubra** will wash
Wall Covering

FREDERIC BLANK & CO., INC.
230 Park Avenue New York, N. Y.

Photo Ewing Galloway

"CRACKED ICE IN A HURRY?

That's easy here, Doctor!"

IT'S EASY to provide cracked ice for ice packs . . . or beverages . . . or for any hospital use, where they have Creasey Ice Breakers—and that includes leading hospitals throughout the land. Not only easy to use, but economical—saves ice, saves time, avoids mess. A few turns of the hand crank and there's a generous tray full of ice—uniformly cracked to the size you want. Other models, motor driven, deliver up to fifty tons per hour.

Nothing new or experimental about Creasey Ice Breakers—they have been made, sold and widely used for over half a century. Many of the first models sold are still in service. It's a saying that "A Creasey never wears out." Many hospitals have at least one Creasey on each floor. Leading hospital supply houses can supply you. Why not look into this proven equipment for your hospital? You will find it an economy, a convenience and a source of satisfaction to the entire staff.

WRITE FOR CREASEY BOOKLET No. 34

Gifford-Wood Co., Hudson, N.Y.

CREASEY ICE BREAKERS

8657

10. Development of ward aids and ward clerks to care for tasks no longer assumed by nurses because of the shortage of nurses and their increasing professionalism.

11. Metamorphosis of out-patient departments from "medical soup kitchens" to clinics for diagnosis and treatment of ambulatory patients.

12. Development of a few life insurance and annuity plans for hospital employes.

13. Development of health services for nurses and other hospital employes.

14. Growth of local and regional hospital councils.

15. Development of the council on community relations and administrative practice of the A.H.A. into a permanent planning body for the association and its separation later into seven councils.

16. Growth of interest in hospital public relations programs on a comprehensive scale.

17. Reorganization of American Hospital Association to meet increased needs for thoughtful and continued attention to hospital problems and to provide more democratic basis for representation.

18. Continuing participation by hospital representatives in standardization work of the U. S. Bureau of Standards.

19. Development of standards for purchase of hospital products in The Hospital Yearbook.

20. Inauguration of certain group purchasing arrangements.

21. Segregation of obstetrical patients in hospitals.

22. Development of hospital follow-up service.

23. Transition from pavilion to skyscraper type of hospital construction for large hospitals; in latter part of period a revival of interest in one-story construction for small hospitals.

24. Extension of the humane aspects of the care of mental patients.

25. Growth of a library of significant books on various aspects of hospital administration.

26. Adoption of shorter hour week in hospitals.

27. Use of radio for entertainment of patients and personnel and for public relations purposes.

28. Emphasis on physical and esthetic comfort for patients and personnel.

29. Employes increasingly housed outside of hospitals.

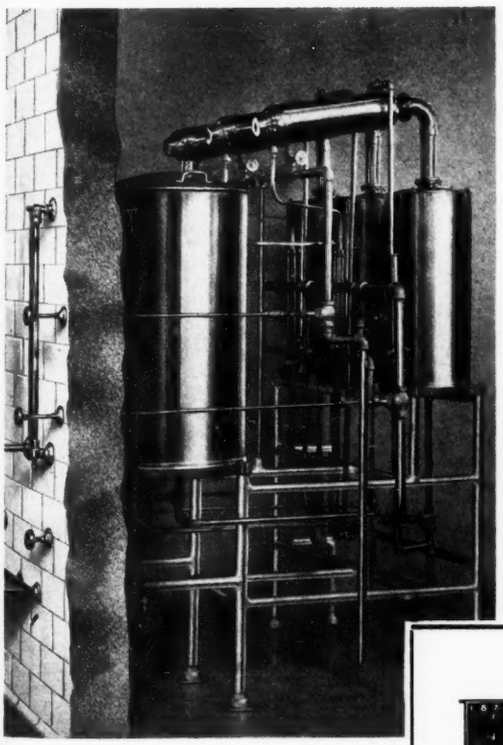
Social and Economic

1. Development of hospital care insurance plans from small beginnings in Dallas, Tex., in 1929 (and in a few other places) to a widespread system embracing in 1938 more than 2,000,000 subscribers and dependents. Important guidance given to this movement since 1933 by the council on community relations and administrative practice of the A.H.A., then by the Committee on Hospital Service, both aided financially by the Julius Rosenwald Fund.

2. Changes in the character of metropolitan living which have affected hospitals, including increased use of apartments, tenements and other types of multiple dwellings, decreased birth rate and, more recently, the trend toward decentralization of cities.

3. Growth of wider social concept of hospitals resulting in hospital surveys in Cleveland, Louisville, San Francisco and, most recently, in New York City. Part of this trend is reflected in the strengthening demand for a coordinated community hospital program and for effective

THE HOSPITAL'S CHOICE FOR PURE DISTILLED WATER



Modern Barnstead Triple Distilled Water Outfit, with concealed mounting.

In 1878 the first Barnstead Water Still went into a Boston hospital—an experiment. In 1931 fifteen Barnstead Stills — *at one time* — went into a New York Hospital—*necessities*.

During the past sixty years the use of pure distilled water has become an important safeguard in all types of hospital work—due, in no small way, to the efficiency and economy with which modern stills produce pure water. Towards this, Barnstead has contributed its share.

In the development of water stills, Barnstead offered, almost from the start, such purity-insuring features as raw water preheating and condenser venting. Moreover, Barnstead was the first to introduce the hard water still, the double and triple stills, the efficient Spanish Prison Type Baffle, the modern electric immersion heater and the full automatic, self-starting, stopping and flushing distilled water outfit.

And because of such developments—in addition to their design, construction and unquestionably pure distillates—Barnstead Water Stills have been approved by the American College of Surgeons and accepted by thousands of Hospitals, the world over.

APPROVED
AMERICAN COLLEGE OF SURGEONS

Barnstead
STILL & STERILIZER CO. Inc.
31 LANESVILLE TERRACE, FOREST HILLS,
BOSTON, MASSACHUSETTS

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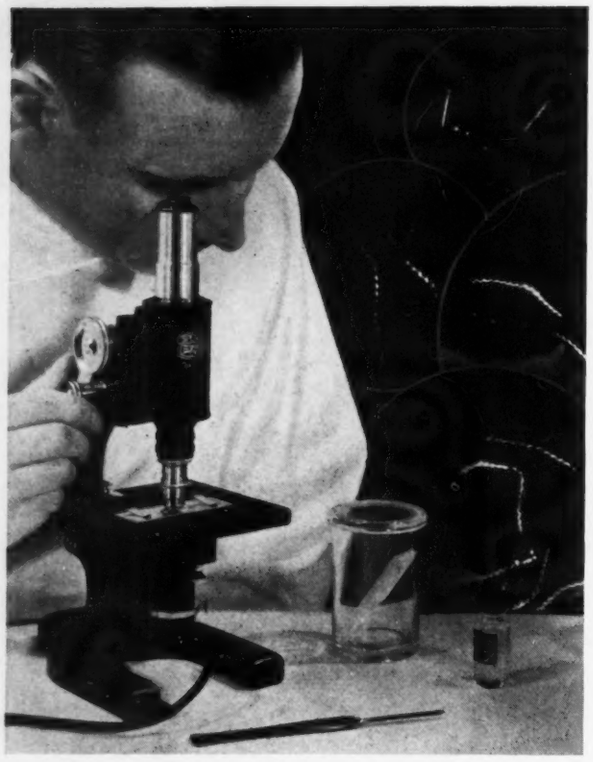
If you want to see the most modern, efficient types of water stills—steam, gas, electrically and kerosene operated stills—stills with all types of mountings—the type of stills most suitable for your pharmacy, surgery, clinic or any other department—write for this complete 70 page catalog of Barnstead Water Stills. No obligation.



Spencer New Developments *aid Medical Progress*

For many years Spencer has been recognized as an outstanding pioneer of important and successful new developments in optical instruments.

The DARK FIELD MICROSCOPE (illustrated above) represents the most recent Spencer microscope development. It saves considerable time in routine dark field work.

The SPENCER "BRIGHT-LINE" HAEMACYTOMETER with its bright lines and dark background provides greater visibility of corpuscles, increasing the accuracy of counting and decreasing eyestrain.

The SPENCER QUEBEC COLONY COUNTER with its indirect illumination of a dark field and bright lines improves the visibility of colonies, assuring quicker, more accurate colony counts.

SPENCER MICROTOMES, both rotary and sliding, have earned an enviable reputation for their high precision and mechanical perfection.

It shall always be the aim of Spencer scientists to produce instruments worthy of your best efforts . . . instruments which will contribute to your greater achievement.

Write Dept. J43 for catalogs on Spencer Hospital Instruments

Spencer Lens Company

MICROSCOPES
MICROTOMES
PHOTOMICROGRAPHIC EQUIPMENT

SPENCER BUFFALO U.S.A.

REFRACTOMETERS
COLORIMETERS
SPECTROMETERS
PROJECTORS

control over capital investment, either through hospital councils or otherwise.

4. Advance in standards for rural hospitals with aid from Duke Endowment, Commonwealth Fund and Bingham Fund.

5. Growth of teaching hospitals in all parts of the world, some of them aided by the Rockefeller Foundation, all influenced in some degree by Flexner report on medical education.

6. Widespread extension of medical social service in hospitals and out-patient departments.

7. Exhaustive study of out-patient work and development of standards by the Committee on Dispensary Development. Flourishing of the Associated Out-Patient Clinics of New York.

8. Passage of hospital lien laws in New Jersey, Iowa and many other states.

9. Development of community chests, welfare federations and similar organizations to coordinate the work of all types of social agencies.

10. Growth of regional, state and local hospital organizations with more emphasis on legislative programs.

11. Gradual spread of the utilization of follow-up clinics.

12. Growth of interest in the care of chronic patients and formulation of a program for the systematic study of chronic disease by the largest municipal hospital service in the country.

13. Legal requirement of 8 hour day and 48 hour week for nurses in government hospitals and in some states for all women workers in hospitals; voluntary adoption of such schedules in certain hospitals.

14. Changed relations between hospitals, the medical profession and the public resulting from workmen's compensation laws and lien laws.

15. Widespread demand by voluntary hospitals and acknowledgement by public authorities of public responsibility for the cost of medical and hospital care to the indigent.

16. Abolition of the formerly widespread practice of using student nurses for private duty nursing.

17. Gradual disappearance of almshouses as custodial institutions for the chronically sick.

18. (a) Widespread growth in number, size and complexity of out-patient departments, development of new types of specialized clinics as parts of such department, growth of pay clinics, both diagnostic and therapeutic; (b) trend toward affiliation of all out-patient services with hospitals.

19. Spread of inclusive-rate system of charges to patients.

20. Rise and fall of the "patient of moderate means" as a center of hospital interest and anxiety.

21. Rapid growth since the World War in number and size of government hospitals and improvement in the character of their services.

22. Wide growth of prenatal clinics.

23. Assumption by many voluntary hospitals of the financial burden of training nurses for public health, private duty, industrial and institutional nursing.

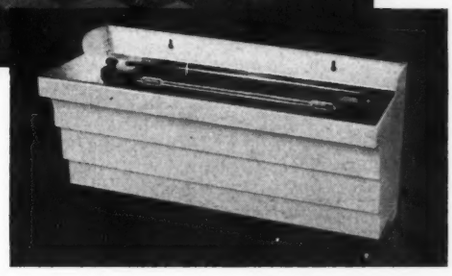
Technical Trends

1. Utilization of air conditioning in hospitals for both comfort and therapy.

2. Improved types of hospital equipment, such as beds, operating tables, bedpans, and food service equipment.

ONE OF AMERICA'S FOREMOST HOSPITALS PROTECTS ITS CHILDREN WITH

HANOVIA SAFE-T-AIRE LAMPS



Ultraviolet Rays kill Micro-organisms in the air and thus help to prevent infection and spread of contagious diseases.

A modern safeguard for wards, operating rooms and clinics.

The photograph here shown is that of the Infants' Ward in a famous Western hospital. Note the Floor Model and the Wall Model of the Hanovia Safe-T-Aire Lamps. These lamps provide a powerful source of ultraviolet radiation of the special quality that scientists have shown to be germicidal in action. It is extremely important to note that authorities estimate that many of infected wounds originating in the operating room are caused by air-borne bacteria. Now Hanovia Safe-T-Aire Ultraviolet Equipment effectively kills pathogenic micro-organisms floating in the air—relieving the dread of this contamination from heretofore uncontrollable sources.

The equipment is easy to install, simple and inexpensive to operate. Full details on application.

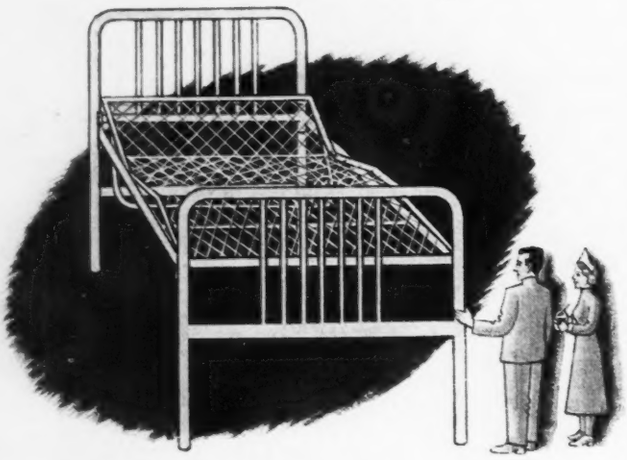
HANOVIA
CHEMICAL & MANUFACTURING CO.
Dept. 315-I Newark, N. J.

This is the wall bracket type of the Hanovia Safe-T-Aire equipment. May be mounted at any convenient point to connect to a 110 volt, 60 cycle circuit. These units come in two sizes—one houses a 12 inch burner — another a 24 inch burner. Complete description on request.

THE FLOOR MODEL OF THE HANOVIA SAFE-T-AIRE LAMP.
This is a portable unit with a burner housing 14 inches in diameter. A highly polished reflector aids lamp efficiency. The upright supports the burner above eye level thus preventing radiations from direct contact with the eyes. Free details on request.

REMOVE PAINT FROM BEDS

this easier, low-cost Oakite way!



WANT to renovate painted metal beds, cabinets, tables and similar hospital furniture?

Then . . . plan your re-conditioning program now, taking advantage of easy, inexpensive Oakite methods for stripping old paint from metal furniture. There is no longer any need for laborious, time-consuming scraping. No need for fire hazardous solvents. Nor do you have to put up with obnoxious fumes.

Simply soak furniture parts in a solution of the recommended Oakite material. Old paint is thoroughly loosened. A rinse completely removes it.

The new paint or enamel finish will take evenly, adhere firmly. Costs will be less than by any other method you have ever tried.

ASK US ABOUT ANY CLEANING OR RELATED PROBLEM

On this or any other hospital cleaning problem, take advantage of our 30 years' successful experience. Won't you write us today?

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OAKITE PRODUCTS, INC., 18A Thames St., NEW YORK, N.Y.
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OAKITE *Certified* CLEANING
MATERIALS & METHODS FOR EVERY CLEANING REQUIREMENT

3. Acoustical treatment of ceilings and walls (began in 1925).
4. Vast extension of uses of electricity in hospitals: in treatment and therapy, for communication, for labor saving machinery, for lighting, for cooling.
5. Increased use of labor-saving devices.
6. Introduction of new types of flooring and window treatment.
7. Extensive use of new corrosion resistant metals in all parts of the hospital.
8. Use of oil, gas and electricity as substitutes for coal in hospitals.
9. Development of frozen foods.
10. Application of business machines to hospital accounting.
11. Widespread use of motor ambulances.
12. Rapid advances in x-ray equipment, including shockproof machines, rotating anode x-ray tube and precision measuring instruments.
13. Almost universal adoption of fire resistant construction.
14. Increased mobility of hospital equipment.*

*This material was prepared by Alden B. Mills who assumes full responsibility for errors or ommissions therein. Valuable aid was given by Dr. G. Harvey Agnew, Dr. M. Herbert Barker, Dr. E. M. Bluestone, Anna E. Boller, H. V. Cadwell, Dr. Fred G. Carter, Dr. John S. Coulter, Dr. S. S. Goldwater, Donelda R. Hamlin, Marcella R. Lehman, Dr. H. M. Livingstone, Dr. Basil C. MacLean, Ada Belle McCleery, Dr. C. W. Munger, Charles F. Neergaard, A. O. Osterling, Dr. T. R. Ponton, L. M. Prime and Dr. W. S. Rankin.

A.H.A. Convention Program

(*Continued from page* 142)

Banquet and Ball

Wednesday, 7:00 p.m.

Grouping of the Colors: Charles C. Selecman, D.D., LL.D., Former President, Southern Methodist University, Dallas.

Address: Pat Neff, President, Baylor University, Dallas.

Public Hospital Section

Thursday, 2:00 p.m.

Address: Social Service Admitting in Public Hospitals, Ruth Tartakoff, Children's Bureau, Washington, D. C.

Address: Domiciliary Care in Connection With Municipal Hospital Service, Walter S. Goodale, M.D., Buffalo, N. Y.

Address: Relationship of Public Hospitals to Local Health Agencies, Graham L. Davis, Duke Endowment.

Address: Public Hospital Control—(a) Commission; (b) Commissioner, James A. Hamilton, New Haven, Conn.

Discussion: Russell H. Oppenheimer, M.D., Atlanta, Ga.

Address: The Problem of the Training of the Intern in a Municipal Hospital, Nathan Smith, M.D., New York.

Round Table: Covering all other subjects.

Round Table and Closing Session

Friday, 9:00 a.m.

Round Table: Led by Robert Jolly, Houston, Tex., and Malcolm T. MacEachern, M.D., Chicago.

Induction of the New President: G. Harvey Agnew, M.D., Toronto, Canada.

Introduction of New Officers for 1938-39: G. Harvey Agnew, M.D.

Unfinished Business.

New Business.

Hats off!

TO THE **DIETITIAN** AND BE SURE THIS IMPORTANT MEMBER OF YOUR STAFF IS PROVIDED WITH AN...

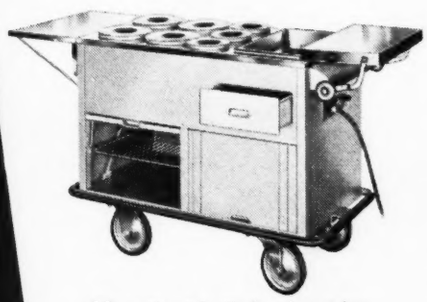
Ideal

FOOD CONVEYOR SYSTEM

Found in Foremost Hospitals

Stainless steel . . . fully automatic thermostat control of temperature . . . 5-year electrical element guarantee . . . many patented features EXCLUSIVE in Ideals . . . and the *only* conveyors fully approved by the Underwriters Laboratory. . . More than 60 standard models. . . Also custom service.

16-tray carrier with hot and cold shelves.



50-patient bulk food service model.

● Whether you count your patients in hundreds or in thousands, their progress and the consequent reputation of your hospital is in a great degree dependent upon the skill and efficiency of your dietitian. The ability of this important member of your staff to provide proper hot meals temptingly served to a large number of patients is in turn dependent largely upon the equipment which you provide. . . Whatever the size of your institution, there are suitable Ideal Food Conveyors that will give your hospital an enviable reputation for rapid temperature-controlled food distribution and at the same time will save food, serving costs and cash in the Dietary Department. . . Write for latest descriptive literature, specifications, etc.

Manufactured by

THE SWARTZBAUGH MFG. CO. Established in 1884 **TOLEDO, OHIO, U. S. A.**

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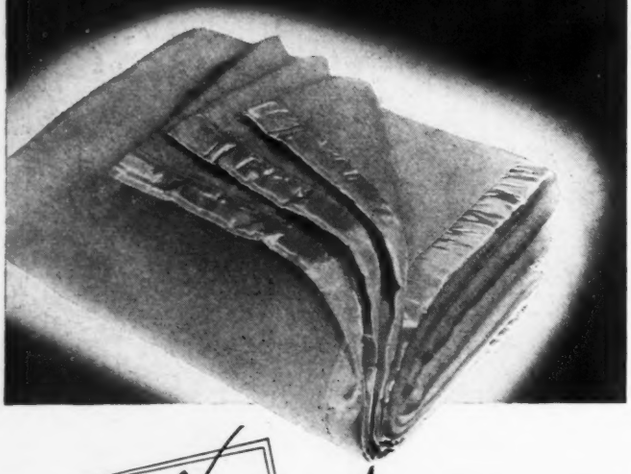
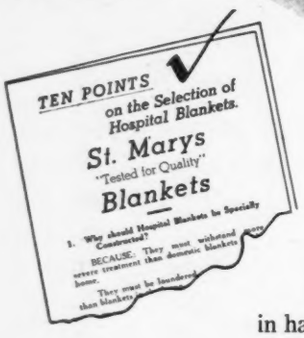
Partial view of the battery of Ideal Food Conveyors on regular duty at Eloise Hospital, Eloise, Michigan.

BLANKETS *Specially* MADE for HOSPITAL USE





CHECK THESE 10 POINTS

St. Marys Blankets for hospitals are specially constructed to give long wear in hard, everyday service. They're made to withstand many launderings and keep their beautiful new appearance for years.

Their special construction is the result of over 50 years' experience in manufacturing blankets for hospitals. This experience has proved, for example, that cotton warp of fine count is best for strongly and firmly tying in the filling. Special cotton warp is used in St. Marys Hospital Blankets. Warp and filling are *virgin materials* of finest quality. All St. Marys Blankets are *double-napped,* downy soft and light, extra warm. Woven ⅓ to ½ oversize and carefully preshrunk.

Leading hospitals use St. Marys Blankets and tell us they give lowest-cost-per-year service. Check the reasons. Send for free "Ten Points" folder.

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Los Angeles Office: G. Roellinger, 722 S. Los Angeles St.

ST. MARYS *Blankets*

THIS WAS NEWS 25 YEARS AGO

15th Annual A.H.A. Conference

Boston provided the best working program the A.H.A. probably has ever had (Aug. 26 to 29, 1913). The meeting was held in the Copley-Plaza Hotel and all the sessions were held there except one session of the large hospitals, which was held on Wednesday morning in the Massachusetts General Hospital. There were about four hundred members present at the Boston meeting.

If there was a chief feature at the Boston meeting, it was the emphasis laid on social service in the hospital and it might also be said that the meeting was a social service meeting, notwithstanding the great amount of nursing talk of all sorts.

The meeting ran smoothly from start to finish, with just enough piquancy furnished by Rev. Dr. Kavanagh and Doctor Fowler, of Louisville, to keep up the interest. There was no friction of any kind and perfect harmony prevailed. Doctor Kavanagh at various times during the meeting objected to a committee on nominations of officers and proposed a change in the constitution to wipe out that committee, but he was not serious about it and it seemed that his proposal came rather as an intended emphasis on the necessity for the association to broaden out into a better form of democracy. When Doctor Kavanagh's proposed amendment to the constitution was finally put before the convention, no one voted for it and yet Doctor Kavanagh had made his point.

The first paper on the program was that of Doctor Norton on "Medical Organization and Education." His paper dwelt on the necessity for a properly organized medical staff that would look after the education of those who were working in the hospital, as well as the students of schools that were a part of its administration. Doctor Norton went into a good deal of detail about the proposal at Johns Hopkins Hospital to pay chiefs of the various scientific services and to demand of them the greater part of their time.

Doctor Shutt, hospital commissioner of St. Louis, predicted that in a few years the hospitals and medical schools of this country would be amalgamated and operated under the same management. . . . He thought the medical student should live in the hospital during his whole undergraduate period.

A paper by Mary M. Riddle of Newton, Mass., on the subject of "The Grading of Nurses" was very long and occupied an hour and a half in reading, but contained the best possible argument in favor of high standards for probationer nurses. Miss Riddle thought the greatest drawback to supplying different kinds of nurses for different cases was the attitude of sick people themselves, some of whom really do not need very highly trained nursing, but all of whom think they do, and none of whom would be satisfied with anything less than a highly trained graduate nurse.

There were two meetings Wednesday morning. The large meeting was that of the small hospitals. Mr. Olson's paper on "How the Small Hospitals May Be Made Self-Supporting" was the first paper on the program. Mr.

Simmons Introduces

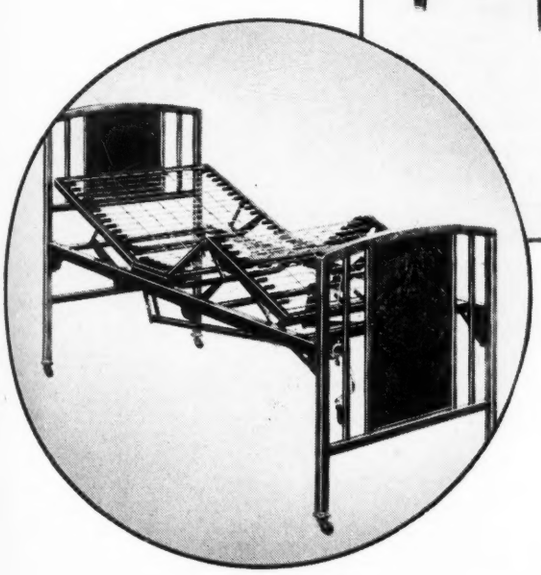
A SMART NEW HOSPITAL SUITE

At an Extremely Low Cost

Illustrated at Right

No. 144 Dresser
No. 144 Desk
No. 144 Chest
No. 144 Night Table
No. 23172 Chair

In rich Butt Walnut finish



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Posture spring bottom. Handles for adjusting to various positions. Larger size ball-bearing rubber wheel casters available.

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UNDER MOST DIFFICULT CONDITIONS
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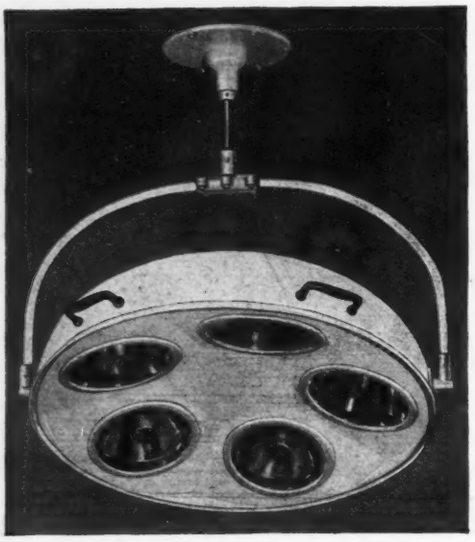

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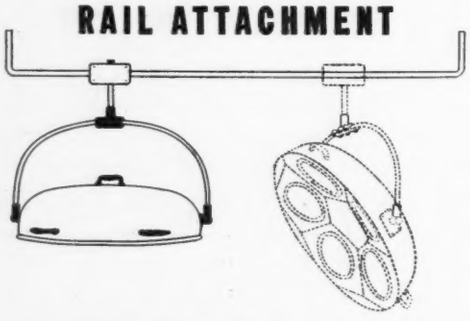


RAIL ATTACHMENT: For those institutions requiring a light which can be moved over a wide area. Light moves on ball bearing trolley.

WRITE FOR DESCRIPTIVE CATALOG

Prometheus Electric Corp.
101 West 13th Street New York, N. Y.

Olson's paper elicited a long and highly interesting discussion. Doctor Cook of Natick, Mass., thought the best way to have things done right in the small hospitals, both as to the conduct of the hospital's staff work, the administration, the financing and all the other problems, was publicity.

Doctor Hornsby's paper is published elsewhere in this number, because it is on a subject that is perhaps the most important issue before the hospitals of this country and because the Carnegie Foundation will have been asked to do the work of inspection and classification and standardization of the hospitals before the next number of The MODERN HOSPITAL is issued.

Doctor Hurd thought that the method proposed by Doctor Hornsby of asking the Carnegie Foundation to do the work of standardization was the best way.

Doctor Goldwater spoke with reference more particularly to standards of efficiency in medical work, and he brought up a point which he has emphasized many times recently—that any hospital advertising itself to take care of the sick should be equipped to take care of a patient, no matter what disease he suffered from or what complications supervened after his admission to the institution.

Doctor Howard thought that any inspection of hospitals by a disinterested, efficient agency would be a vast benefit to any hospital, because the subsequent report would give the hospital management an idea of how an outsider viewed the institution.

The next paper on the program was that of Doctor Hollings on "Record Keeping at the Massachusetts General Hospital." It was an important paper and the system employed in the Massachusetts General Hospital can be made of great service because modifications of that system can be made that will lend themselves to any hospital.

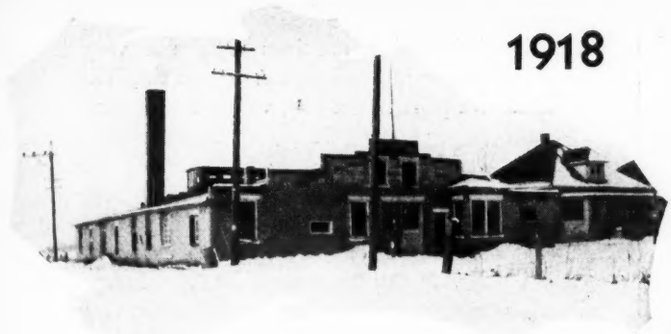
Another interesting topic concerned "The Most Ethical Means of Advertising Small Hospitals." Doctor Hornsby thought that efficiency was the prerequisite to the popularity of a hospital. Mr. Borden of New York thought the question had not been answered and that ethical advertising was some means by which the general public could know what the institution was doing. It was all right, he thought, to have a good reputation, but that reputation had to be advertised.

Doctor Fowler of Louisville thought the question ought to be twisted and that it should read, "How to prevent people who are able to pay from imposing on charity." He thought it was a common and accepted policy on the part of the public, and that the people were honest in believing that they should have free treatment in any hospital that was supported by any part of the public and that only education could disabuse their minds of that idea.

Highlights of A.M.A. Meeting

Some of the best papers that have ever been written on hospital subjects were read before the hospital section at the Minneapolis meeting of the American Medical Association, June 17 to 20, 1913. The papers themselves were all full of meat, and the discussions were in every way worthy of them.

There were about 5000 members of the association present, and the ladies and other noncombatants brought together at Minneapolis a crowd of about 7000 people. The university folks turned over the university buildings for meeting purposes and the sections were all housed in them.



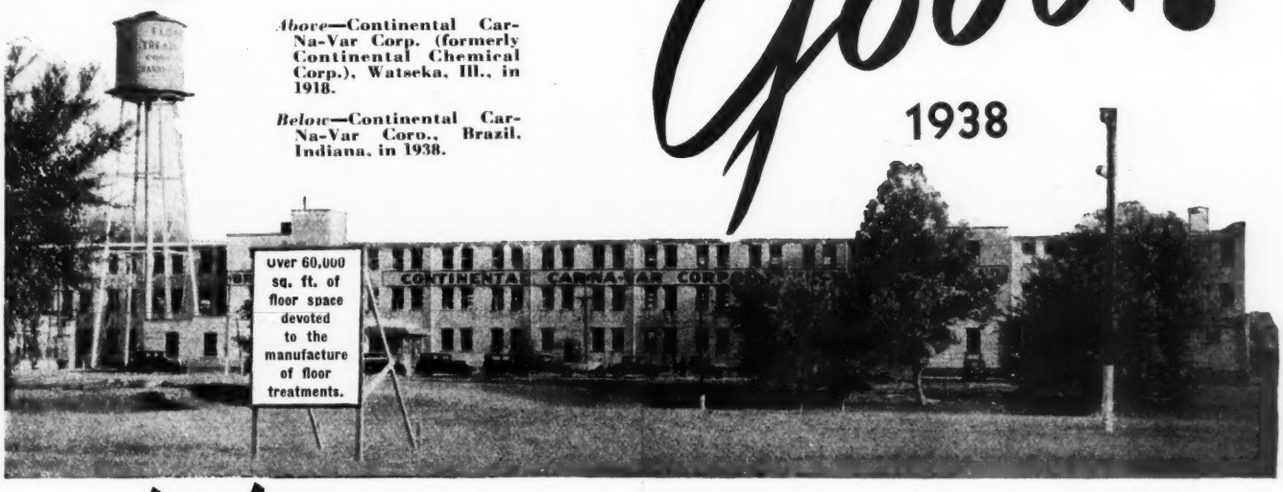
1918

IT HAD TO BE *Good!*

1938

Above—Continental Car-Na-Var Corp. (formerly Continental Chemical Corp.), Watseka, Ill., in 1918.

Below—Continental Car-Na-Var Corp., Brazil, Indiana, in 1938.



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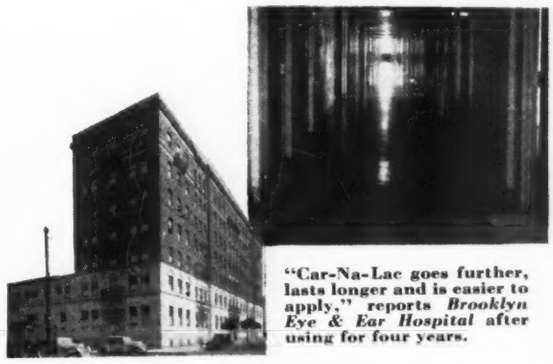
"No other floor finish is as economical and labor saving as Car-Na-Var," says *Mount Sinai Hospital*, Chicago.



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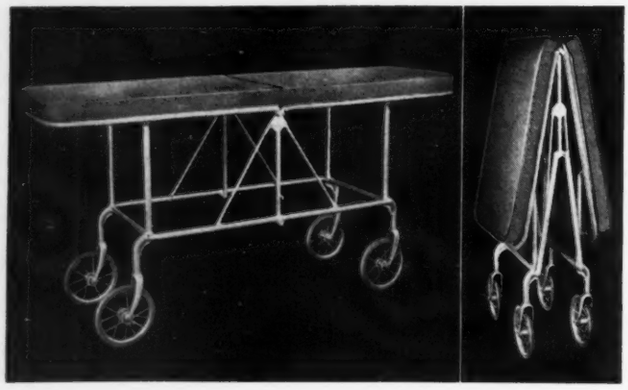

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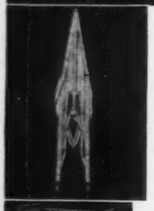

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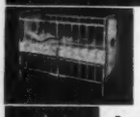

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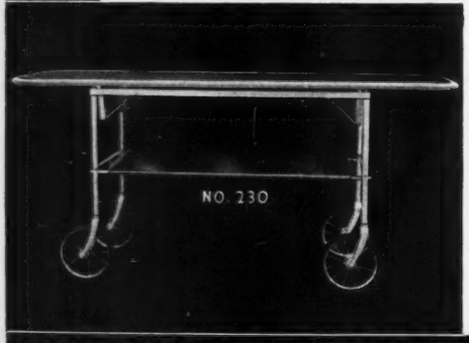

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The hospital section meetings were not very largely attended. For the hospital section it was decided to have only about five papers each day, which would take up one-half the morning, leaving 50 per cent of the time for discussion. The afternoons of each day were left open to be employed in sight-seeing. A number of those who registered under the hospital section visited the principal hospitals of Minneapolis and St. Paul during these afternoons. Doctor Ancker at the City and County Hospital, St. Paul, has been building a new group of hospital structures, and, as usual, Doctor Ancker has installed exceptionally good machinery and showed his guests some of the new devices.

Doctor Howard of the Peter Bent Brigham Hospital, chairman of the hospital section, made an ideal presiding officer at all of the meetings. The chairman's address was a masterpiece. The concentrated wisdom of a long and busy career poured like crystal water for half an hour.

Doctor Howard thinks that in the very near future every person taken seriously sick will find his best care in a good hospital. He thinks also that the hospitals are growing better all the time—indeed, was very optimistic on this point. The chairman urged three things that the hospital of today and tomorrow must stand for in order to succeed: (1) the care of patients; (2) scientific investigation into the causes and cure of disease, and (3) the education of physicians, nurses and hospital people generally, and through them the public, in the best methods to cure and the best methods to prevent disease.

Some Convention Impressions

By JOHN A. HORNSBY, M.D.

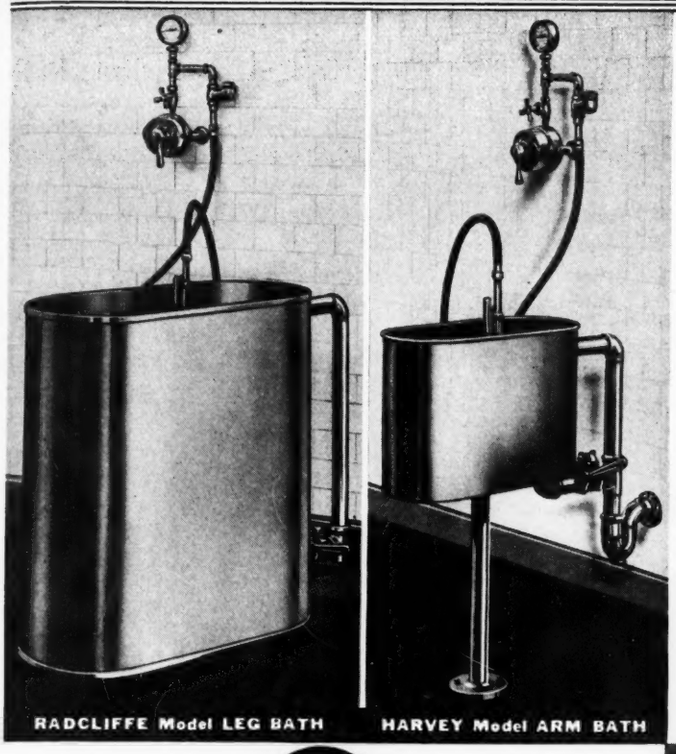
Nearly two thousand nurses met in St. Louis for the annual convention of the various nursing organizations, April 23 to 29, 1914. To a mere man observer the Planters Hotel in St. Louis seemed to hive about a million smart well-dressed women, and they had possession of about everything in the business district of the city.

For a body of citizens supposed to have been in shackles of the opposite sex over a period of thousands of years, the nurses in convention at St. Louis handled themselves with marvelous dexterity, and showed not the slightest stiffness from their shackles. The preciseness of their business methods, the smooth running of their meetings, the tact and diplomacy in the conduct of their relations, showed rather a pastmastership and an intensely high development of what the politicians would call a "free and untrammeled proletariat." Even evidences of "steam rollers" and "gag rule" and "talking against time" and "speaking for buncombe" were sometimes not lacking.

They wore charming costumes as a rule. A few of them were very handsome women, nearly all of them bright looking, alert women bearing every evidence of culture and refinement. Their teas and receptions might have been imitated to advantage by the grand dames of society. One of the ladies in attendance, in answer to a question, said that nearly every woman present was in favor of woman suffrage.

Men stenographers looked very helpless and subdued in those great gatherings of women.

Then the speakers. The observer was accustomed to see women when they spoke at all in public gatherings observe a certain diffidence, not to say timidity. Here all that was lacking. The speakers arose promptly when called on, or, when the discussion was on and they had something to say,



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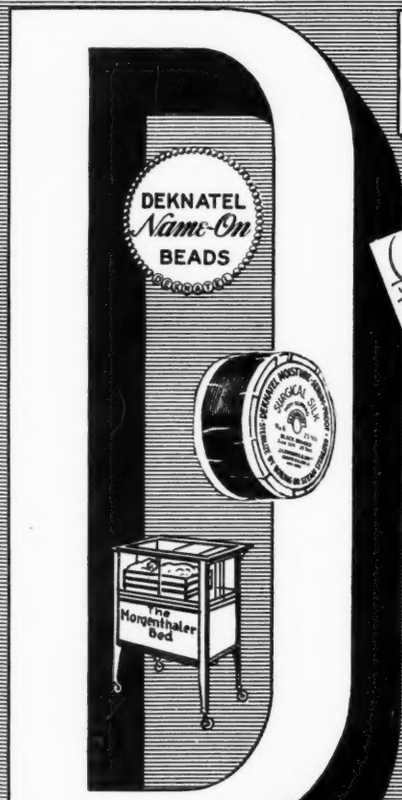

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The voting, too, was carried on rather differently than one would expect who realized that women were just beginning to vote. In the election of officers a woman was stationed out in the great corridor of the parlor floor of the hotel behind a little desk. She had before her the list of those who were entitled to vote and the ballot box, with a slot through which the ballots were deposited. All day the women came up as they found time to do so, deliberately marked their ballots, more deliberately still deposited them in the box and then yet more deliberately walked away as though the whole matter were a routine through which they went every day of their lives.

American Nurses' Association

By ELIZABETH ROSS

The convention at St. Louis [April 23 to 29, 1914] brought together nurses from all parts of the United States, but as would be natural because of the place of meeting the nurses from the Middle West states came in greater numbers than from the extreme East or West.

The report of the treasurer showed the American Nurses' Association to be on a good business basis and the financial report of the *American Journal of Nursing* showed an increase in the returns under its new management. The report of the Isabel Hampton Robb Scholarship Fund showed that three scholarships have been given for this year—two for Teachers College for nurses wishing to prepare for teachers in training schools; the third for training in public health work to be received at the Boston School for Social Workers.

At 8 o'clock a general session was held and after the address of welcome by Mr. Robert S. Brookings, president of the corporation of Washington University, of St. Louis, the presidents of the three convening organizations each addressed the nurses and were followed by an address by Surgeon J. O. Cobb of the U. S. Public Health Service.

Friday morning brought together, at the call of Miss Jane A. Delano, all of the Red Cross nurses. It was an inspiring sight to see the large auditorium filled to the doors with Red Cross nurses, all women trained and vouched for as women of ability and of private character above reproach. Miss Delano called the roll for the states and almost every state in the Union was represented. After the roll call Miss Delano said, in substance, that now when war seemed so near the whole Red Cross organization was to be tested. If the call came for nurses, each state must assume its own responsibility and send only those women on whom they could stake their lives and that more precious possession, their honor.

The discussion of the Red Cross uniform was amusing. Miss Gladwin served as a model and wore the chosen dress—gray-blue Japanese crêpe with white crêpe collar, white apron and cap, and a sailor hat and military coat. Many of the nurses sighed at the thought of wearing this uniform and it will take more heroism to obey this order than to take typhoid serum or to go to the front.

THE PATIENT EXPECTS

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When operating room equipment had to conform to set standards, it was a great step forward in hospitalization. Unfortunately, surgical instruments are usually not required to conform to quality standards.

With the result that in most cases, surgical instruments are not bought by standards, but at the lowest price.

When a surgeon has to use such instruments, then an important part of every operation has no better qualification than the lowest price.

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FROM READERS ROUND THE WORLD

WHEN The Modern Hospital *comes off the presses in Chicago, it travels around the globe, bringing information on hospital administration, architecture, technics of plant and equipment, dietetics and maintenance, as well as advertising of hospital products, to hospital and medical workers.*

In appreciation of the magazine's services, many hospital administrators, architects, and other hospital workers have sent congratulatory messages to Dr. Otho F. Ball, publisher of The Modern Hospital, *upon the occasion of the twenty-fifth anniversary of the magazine. Because of space limitation, excerpts from letters from overseas' readers only are included.*

Winging their way eastward, first come these letters from China:

China

It gives me great pleasure to convey to you my heartiest congratulations upon the happy occasion of the twenty-fifth anniversary of the founding of The Modern Hospital. To those who work in the medical field the name The Modern

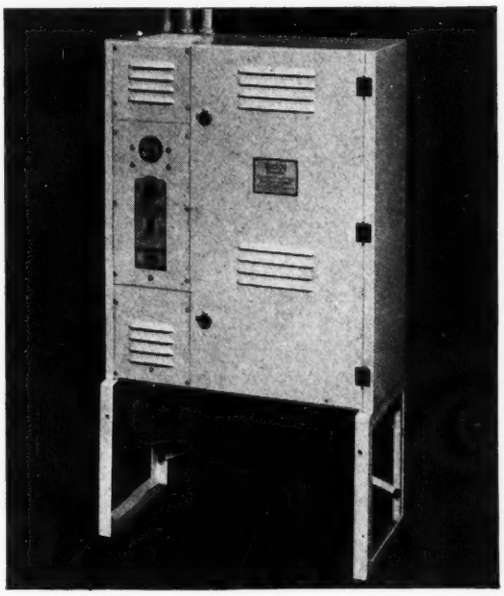
In commemoration of the 25th anniversary of the founding of The Modern Hospital, Guiding Hand of Hospital Administration, S. T. Wang, Peiping, China.

Hospital is a very familiar one, and we medical men . . . could hardly get along without the guidance of this magazine. We acknowledge our debt to you as the founder of this valuable journal and cannot adequately express the usefulness of such a publication to our profession.

S. T. Wang, M.D.
Superintendent of the Hospital
Peiping Union Medical College

It is with very much pleasure that I write to congratulate you on the outstanding success of The Modern Hospital, founded by you a quarter of a century ago. For several years now this valuable periodical has had its place on the bookshelves of the library of the Cheeloo University School of Medicine. We constantly find it of value in our work here and almost never fail to find in its pages an answer to the many questions of hospital technic and administration that so frequently arise in a hospital such as ours.

This $265. unit offers adequate emergency lighting for smaller hospitals



BY "adequate" protection, modern hospitals mean unfailing emergency light, not only over the operating table and in the operating room, but in those other vital areas throughout the hospital where darkness always means danger and delay.

The new Exide unit for smaller hospitals operates both instantaneously and automatically. At one and the same time, it protects operating lights and general illumination in two operating rooms, as well as light in the delivery room, anesthesia room, sterilizing room, medicine room, accident dispensary, and any other single room desired.

The utility companies take every precaution, but cannot control the effects of storms, floods, fires or street accidents. Privately-owned plants, no matter how carefully planned and operated, may also have interruptions that render this dependable protection essential.

In addition to the Exide unit for smaller hospitals, there are larger, 115-volt Exide Systems. The only maintenance these units require is the addition of water four times a year. Write us for free bulletin.

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Blood Analysis	**Pathology**

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. . . We are doing our best to maintain a modern departmentalized institution . . . and offer you our very warm thanks for the share which you have taken in making the task of such hospitals easier.

GORDON KING, F.R.C.S. (Eng.) F.C.O.G.
Cheeloo University Hospital
Shantung, China

Shortly after my election to the position I now hold in the Foochow Christian Union Hospital and while I was absolutely green to hospital administration, . . . I was looking through a pile of issues of THE MODERN HOSPITAL that had belonged to my predecessor. . . . Immediately . . . I subscribed for the journal personally and have been taking it ever since. . . . During this period we have been adjusting our internal administration to an anticipated program in a new plant. The building suggestions that we have culled from various numbers have been tremendously worth while.

In one issue of THE MODERN HOSPITAL I noticed an article by a staff member from the American University Hospital in Beirut, Syria. I was planning a trip through that part of the world and wrote this party and I had a wonderful time visiting the hospital there through the contact formed through that article. . . . The help I received . . . was well worth the trip.

HENRY V. LACY
Superintendent
Foochow Christian Union Hospital
Foochow, Fukien, China

Holy Land

In our efforts to provide highly modern medical facilities for a community which is being built up under peculiar and difficult conditions, it has been very helpful to read of the experience of others who are working in a country that ranks so high in the field of medical science.

The Hadassah Medical Organization . . . has endeavoured to establish in this country a network of modern medical services, based upon American methods. Through the various articles in THE MODERN HOSPITAL, the administrators here have been able to keep in touch with the new developments of hospital science in the States. . . . Your journal has served to bridge the distance between Palestine and America.

R. YASSKY, M.D.
Director, Hadassah Medical Organization
Jerusalem, Palestine

The Jewish National and University library has been receiving your periodical . . . for a number of years . . . and has been much in demand, particularly from the physicians of Palestine.

PROF. G. WEIL
Director, Jewish National and University Library
Jerusalem, Palestine

Switzerland

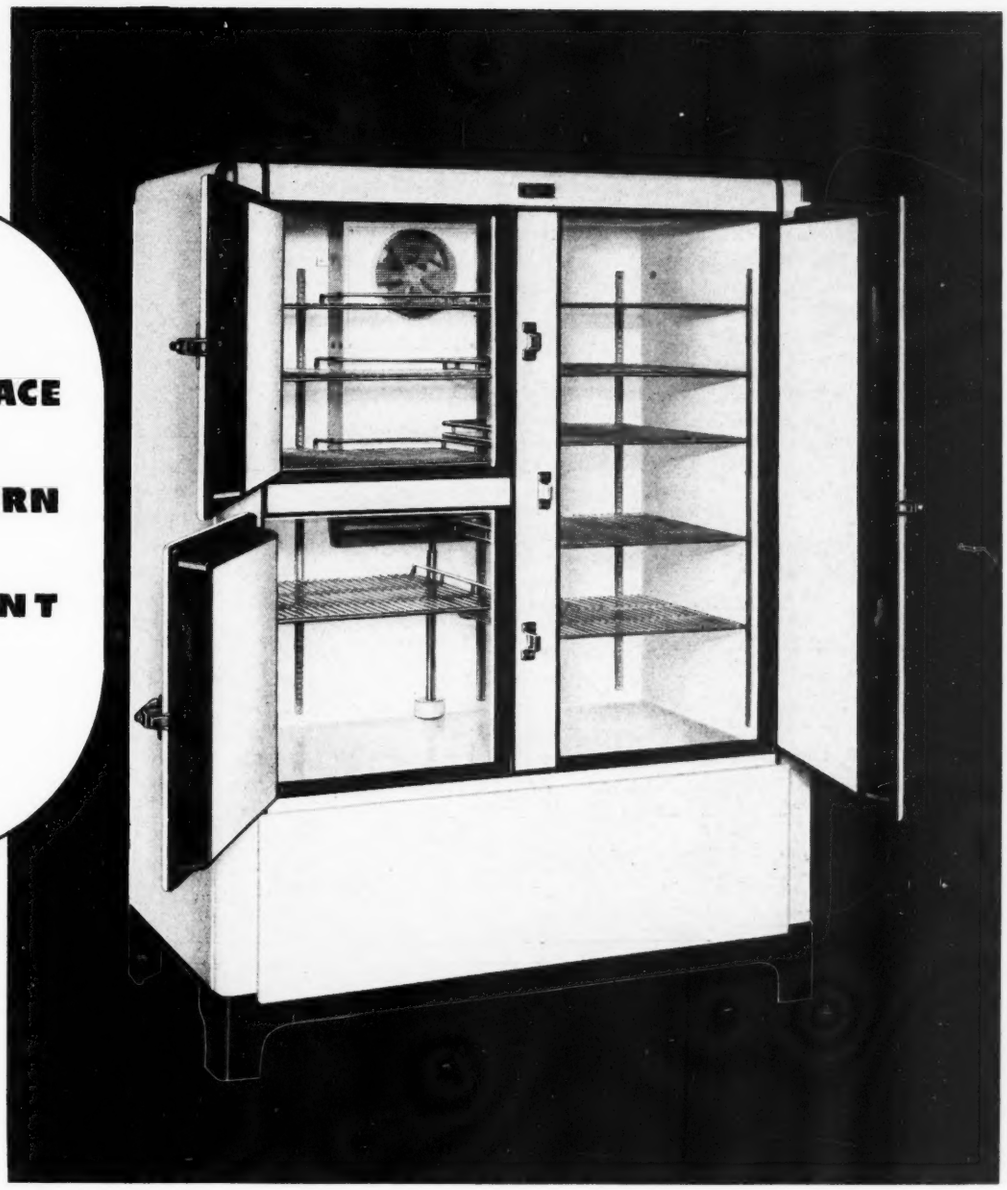
Since the year 1927 we have received THE MODERN HOSPITAL regularly and have collected it with great care in our hospital library, where it is considered a valuable resource of research and information in all hospital matters.

DR. HAUS FREY
Der Direktor des Inselspitals
Berne, Switzerland

Hungary

Being a reader since many years of THE MODERN HOSPITAL . . . I take the opportunity to send you some warm greetings from overseas. As general secretary of the Hungarian Hospital Association and editor of the

KEEPING PACE WITH MODERN EQUIPMENT



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"Hungarian Hospital" monthly, I always pay great attention to every article and illustration in your magazine.

PROF. ALADÁR VON SOÓS
Director of the Institute for Dietetics
General Secretary of the Hungarian Hospital Association

France

We take advantage of the twenty-fifth anniversary of the creation of The MODERN HOSPITAL magazine to tell you that this magazine has always been extremely interesting to us and to present to you our warmest felicitations on the work that you have undertaken. The MODERN HOSPITAL is without doubt . . . in first place among all of the hospital magazines.

We wish particularly to emphasize that this magazine is one hospital publication that is very complete, that it does not specialize in one decided branch of hospital administration, but that it treats theory and practice from all points of view.

DR. J. OSTER
Director General of City Hospitals
Strasbourg, France

Proof of the interest we have in this publication may be found in all the back copies which are carefully marked with red ink, passages which are of great interest to the doctors and nurses. It must be a great satisfaction . . . to know that the teaching of this magazine has been followed in all parts of the globe; the American Hospital of Paris has been one of its most assiduous readers.

EDMUND L. GROS
Chief of Staff
The American Hospital
Paris, France

Italy

As an old and assiduous reader of The MODERN HOSPITAL, I am delighted to have this occasion to express my admiration for your splendid publication which is so useful for those who have the responsibility of the direction and organization of a large hospital.

PUTTI
Il Direttore
Instituto Ortopedico Rizzoli
Bologna, Italy

Portugal

Your splendid magazine, which I always read with deepest interest, has given me precious information which has been of great help to me in the study of the plans, both of the Portuguese Institute of Oncology and of the University Hospitals of Lisbon and Porto over which I preside. In this publication I have often found very good suggestions for construction and equipment of hospitals.

PROF. FRANCISCO GENTIL
Instituto Portugues de Oncologia
Lisbon, Portugal

The Netherlands

. . . It is extraordinarily agreeable for me to congratulate you with this memorable event . . . in the name of the National Dutch Hospital Committee of which I have the honour to be the chairman. . . . As a regular reader of The MODERN HOSPITAL, I entertain great admiration for the way . . . this periodical always has come up to the highest requirements. . . . I not only keep myself posted up with the principal adventures of the American hospital character, but by your publishing of a great many articles with general application, you have

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First it lights, then it buzzes. Always it gets action and builds goodwill among the patients.

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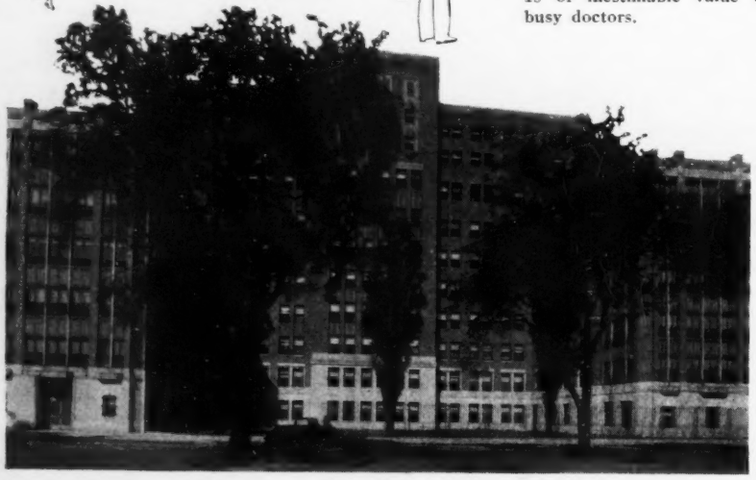

The new Surgical and Medical Building, City Hospital, Boston, Mass., is an outstanding example of the most complete and modern hospital equipment.

All material was carefully selected to ensure the most reliable and satisfactory performance.

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We have heard some fine compliments on this new hospital, and they are all well deserved. Congratulations to the designers and the Staff! That Standard equipment was chosen, again demonstrates the desire of another well managed hospital to keep in step with progress—and to build patient and doctor goodwill.

Arch.—James H. Ritchie & Assoc., Boston, Mass. May we send you full details on what Standard equipment can do for *your* hospital?

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exercised great influence upon the advancement and unfolding outside America.

Dr. J. Hekman

Rotterdam, Holland

. . . Being a reader of your magazine for so many years, it has contributed very much to enlarge my knowledge about American hospital matters and kept me well posted up in the views in your country.

Dr. P. H. van Roojen

Managing Director
Municipal Hospitals
The Hague, Holland

Sweden

Your magazine has contributed in an extraordinary degree toward bringing to the notice of others particulars of American and of other countries' hospitals.

Hjalmar Cederstrom

Stockholm, Sweden

Fifteen years ago I got the first Swedish scholarship given for studying American hospitals. My first studies of this subject started in the library of Harvard University Medical School and in The Modern Hospital series. I remember this very interesting time as if it were yesterday and I still have all my annotations from this very careful survey of all the big volumes. These studies were the inlet to a practice in hospital design.

Since that time The Modern Hospital has always been on my desk every month, giving me new impressions and ideas from the big country in the West. . . .

Gustaf Birch-Lindgrens

Stockholm, Sweden

Great Britain

To have maintained your tradition of high standard in journalism and in hospital news over a period of a quarter of a century is no mean achievement, and we in England offer to Doctor Ball . . . our warmest thanks.

The feature which we prize very highly in The Modern Hospital is the care which is taken, first of all, in keeping the hospital field informed of all modern ideas and progressive activities. . . . You have stated facts in a convincing and attractive form that are living in the minds of hospital leaders on both sides of the Atlantic, and in very truth, you have been an International Hospital Association because . . . you have . . . made . . . use of your splendid journal to internationalise all that is best in hospital service in all its manifold activities. . . .

Sidney Lamb

Merseyside Hospitals Council
Liverpool, England

As a reader of The Modern Hospital of some years' standing, I am prompted to offer my congratulations upon this publication. In my position as steward of a large municipal acute hospital of approximately 550 beds and of an infirmary for the reception of chronic cases of approximately 700 beds, I have found the editorial notes and articles of immense value and help in my work.

J. Preston

Selly Oak Hospital
Birmingham, England

As London Quantity Surveyors concerned with the erection of new hospitals and the enlarging or adaptation of existing institutions . . . we are mostly concerned with

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Extensive clinical investigations in many of the leading hospitals of Europe and the more recent observations in this country have established the position of "Scarlet R Salve" as a dependable remedy in the treatment of many intractable lesions, such as the following:

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The above is a part replica of our half page advertisement from the first issue of The MODERN HOSPITAL.

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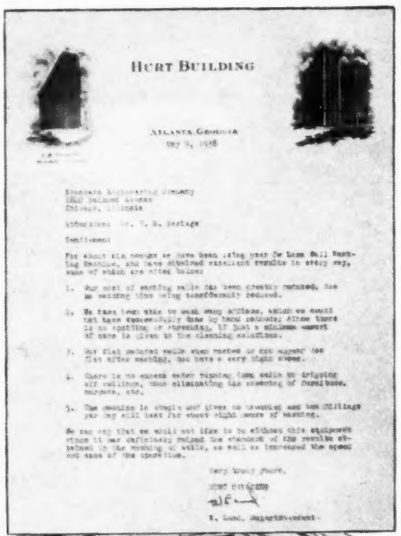

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☐ I would like a FREE demonstration of the Standard System on my walls.

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the records of the new hospitals your architects . . . are erecting in the United States and it is a real benefit to us to have this work portrayed so clearly both photographically and by reproduction of plans and explanatory descriptions with records of costs and descriptions of materials used, such as we find in The Modern Hospital.

Further, articles bearing on current problems of the day, such as prevention of sound transmission, the analysis of the chief sources of noise in a hospital, are outstanding examples of the class of information we all need so badly and which is so helpful when produced and set forth in your authoritative and concise manner.

Alfred Harris

Senior Partner
Widnell & Trollope, Surveyers
London, England

Disease acknowledges no boundaries; the world is the battleground, and the more we can learn of one another, the more effective will be our efforts.

The Modern Hospital has proved itself an excellent medium for this exchange of ideas. Its articles by recognized authorities in the hospital field of America and its pertinent leaderettes, together with a splendid series of adverts., are extremely interesting and informative to English readers. I personally have not missed a copy since March, 1920.

Capt. J. E. Stone

Secretary
Birmingham Hospitals Centre
Birmingham, England

As an overseas reader of The Modern Hospital I am very happy to pay tribute to the quality of the magazine and the great interest which I have derived from reading the editorial pages, as well as the advertisements, which are extremely helpful to hospital administrators.

S. Clayton Fryers

House Governor & Secretary
The General Infirmary
Leeds, England

For years I have had sent to me regularly The Modern Hospital . . which has been read . . . by all officials of the hospital. We have acquired knowledge of hospital affairs abroad which otherwise would never have reached us. The articles writing up the great variety of hospital problems are of particular interest; the illustrations and advertisements, too, add to the completeness of a most interesting and useful hospital publication.

H. F. Rutherford

The Hospital for Sick Children
London, England

We have been subscribers to this journal for many years and have found it most helpful both in the editorial pages and in the advertisements in keeping us up to date in what is happening in your country.

W. Mercer Gray

Director, Chas. F. Thackray, Ltd.
Leeds, 1, England

The authoritative and interesting articles . . . especially those dealing with nursing . . . have been both stimulating and helpful to all members of our profession.

Anna Schwarzenberg

International Council of Nurses

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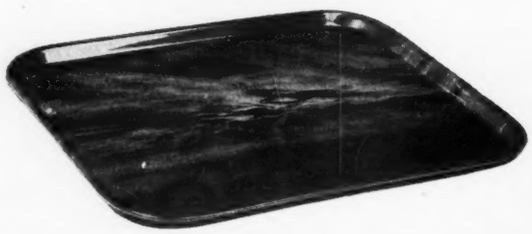

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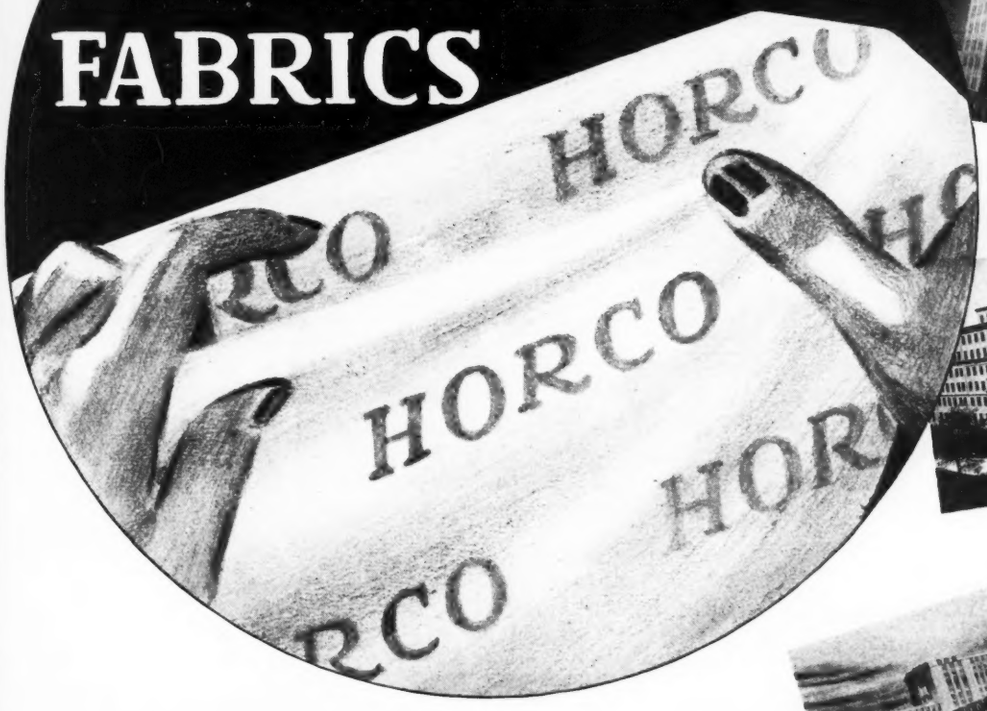

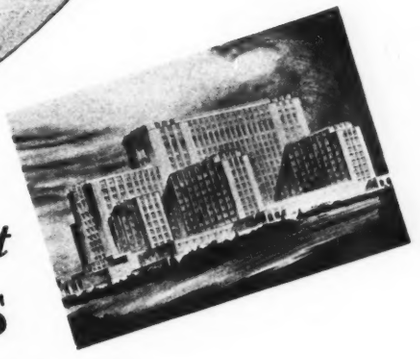

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HORCO SHEETINGS are available with silk, rayon or cotton base cloths—furnishing a wide range in tensile strengths and selections most economical for any hospital purpose.

When buying rubber sheeting look for the water-mark HORCO *imprinted on every yard of* HORCO HOSPITAL FABRIC.

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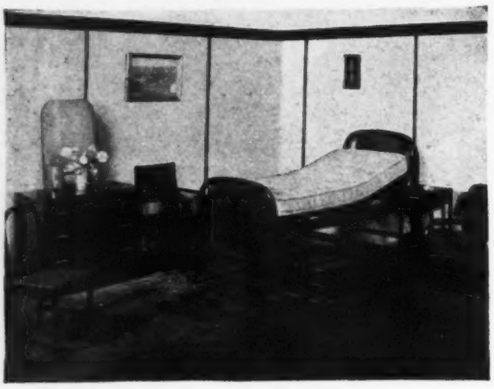

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The newest in hospital beds, private room and ward furniture, mattresses, pillows, bassinets, and removable protective bed sides will be displayed in booths 190 and 191 at the American Hospital Association Convention at Dallas, Texas, September 26 to 30. We cordially invite you to visit our display.

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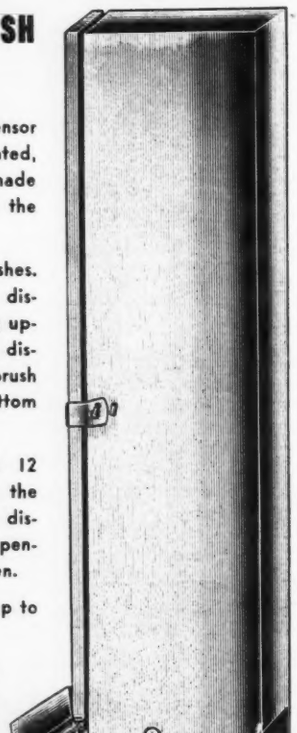
PENNCO SCRUB BRUSH DISPENSOR

The Pennco Scrub Brush Dispensor is made of copper, chrome plated, 16½" high, 1 9/16" wide, made with two eyelets attached on the back to hang on the wall.

The dispensor holds 12 brushes. The brushes are placed in the dispensor with the bristles pointing upward. One brush at a time is dispensed by pushing the bottom brush through the small opening at bottom of dispensor.

The dispensor loaded with 12 brushes can be sterilized in the autoclave. The catch on the dispensor is constructed so the dispensor can be sterilized partly open.

The dispensor takes brushes up to 4" x 1½".



No. 11900 PENNCO BRUSH DISPENSOR
Each $9.50

PENN SURGICAL MFG. CO. INC.
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For some years past, we have taken The MODERN HOSPITAL and we have always found it of great help to our students who are nurses studying at Bedford College . . . under auspices of this foundation. Coming as they do, from all parts of the world . . . they find such a journal of great assistance in their study of comparative nursing.

OLIVE BAGGALLAY

Secretary
Florence Nightingale International Foundation
London, England

Cuba

We desire to congratulate you indeed for the magnificent job you have carried out. . . . We have followed your work closely, reading always your welcome comments in the editorial pages. . . .

Antiga & Company
Obispo No. 25
Habana, Cuba

Costa Rica

It gives me great pleasure to state, on this occasion of the twenty-fifth anniversary of the founding of The MODERN HOSPITAL, that this splendid magazine has been of great help to me . . . while in charge of several public welfare institutions and . . . as secretary of public health . . . not only as a scientific guide, but also it greatly contributed to raise the economic standards of said institutions.

A. PENA CHAVARRIA, M.D.

Secretary of Public Health
San José, Costa Rica

Panama

I have followed very closely the meritorious work which you have been doing through the magazine which you edit and I want most sincerely to make manifest to you that I am highly pleased with it. . . . It has been a contributing factor in the activities of medical science . . . and it has contributed also to the progress of institutions similar to the one which is, at present, under my supervision.

E. JAEN GUARDIA

Superintendent
Hospital Santo Tomas
Republic of Panama

Santo Domingo

As administrator of Hospital Internacional I have read with great profit The MODERN HOSPITAL for several years. From its editorials, articles and advertisements the members of our staff have been able to keep abreast of the movement for better health and better care of patients . . . even though we are in a foreign country as pioneers in the hospital field.

Ours is a mission hospital established in 1921 by the Board for Christian Work in Santo Domingo, a union organization of the Presbyterian, Methodist Episcopal and United Brethren churches.

BARNEY N. MORGAN

Administrator
Hospital Internacional
Ciudad Trujillo, R. D.

Nicaragua

We want to express our appreciation of the helpfulness of your publication in our work here throughout the last three years. We have been able to keep in touch with changes in hospital management and equipment in a way that would be impossible in another manner.

There is no opportunity to visit other hospitals or look

"My Niece tipped me off"

CHUCKLED THE CHIEF

"to something I'd known for 20 years"

1. Cute little trick that niece of mine — can't get used to thinking of her as a married woman. Went around to see the newlyweds' new home and she almost talked my ear off.

2. "Look at my kitchen," she cries, "did you ever see anything more up-to-date? Isn't Monel wonderful? A stainless metal like that ought to be the very thing for your old hospital!"

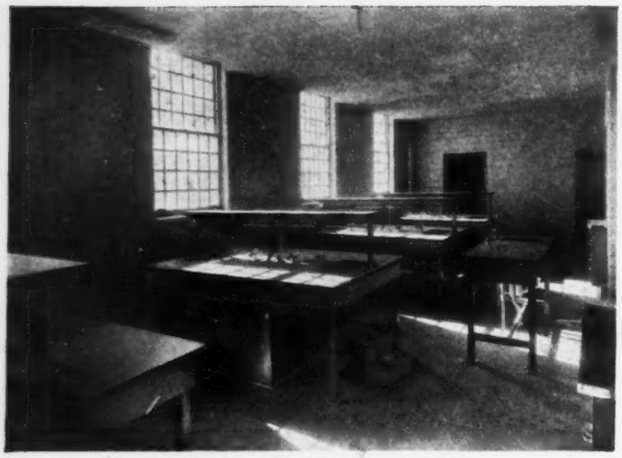
3. Now I suppose I should have told her then and there that I know all about Monel and its stainlessness and that WE started using it along about the time she was just a new noise in our nursery.

4. "Why", she exclaims, "It's so modern. So good-looking. So easy to take care of. And you just *can't* hurt it. I bet this kitchen of mine'll *never* wear out. And I'll tell you something else, too: I bet it will be more sanitary than your hospital *ever* was."

5. "You couldn't want anything cleaner!" She was wound up by this time. "It simply can't rust, either. I've got some in the laundry — she opened a door and showed me. "See, the tub of my washing machine is made of Monel and so is our hot water tank."

"DON'T be an old fogy *all* your life" she goes on, "even if you are Chief of Staff! This Monel is exactly what you want for the hospital laundry as well as the kitchen. And for lots of other things, too, like sterilizers, and cabinets, and laboratory tables, and . . ."

Well, sir, I finally had to tell her that while Monel might be new to her, it was an old friend to us. Was her face red when I explained that everything she had suggested it for we already had. But that's the younger generation for you . . . full of a lot of new ideas that everybody but themselves has been hearing about for years! The International Nickel Company, Inc., 67 Wall St., New York, N. Y.



Taunton State Hospital, Taunton, Mass.

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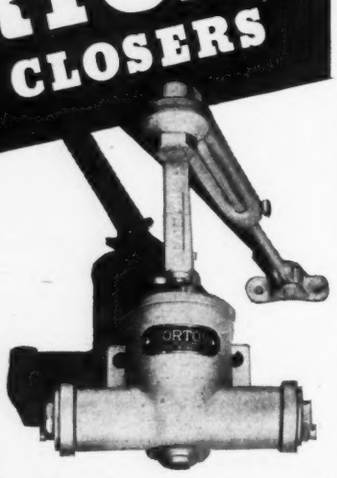

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Director
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I have been receiving now for many years all the issues of your magazine and I can assure you that it has been of great help in the building up of my business activities in the line of medical work in general, electrical therapy and x-rays in which I have been engaged for more than fifty years. . . .

In my capacity of a wholesale and retail dealer I have found in your magazine, as well as in the ads in same, a highly valuable instrument for the building up of my business. . . .

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Montevideo, Uruguay

Union of South Africa

I have no hesitation in saying that it is to my mind the most useful and up to date of all hospital literature that has been published in English speaking countries since the time I have been connected with hospitals.

JOHN C. BENSON

Resident Secretary
Pretoria Hospital
Pretoria, Union of South Africa

Australia

As hospital architects, we find your magazine an indispensable part of our library and The HOSPITAL YEARBOOK an important reference book. We have been subscribers fourteen years and the whole of the collection of magazines is in continual use. Since we opened our Sydney office three years ago, we have found it necessary to take a second subscription so that we may have duplicate files in that office. About thirty members of our staff read these magazines every month and the advertisements also are carefully perused for new materials and equipment. . . .

Travelling abroad in every hospital centre in the British Dominions and throughout Europe, we have found The MODERN HOSPITAL in general use as a source of authoritative reference. To our knowledge it does more to bring about a sound understanding of hospital problems than any other single factor. . . .

A. G. STEPHENSON

Stephenson & Turner, Architects
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. . . Here in Victoria much has been done in the last ten years not only in structure and equipment but in organization and administration. Many and varied have been the problems confronting us but usually I could find in The MODERN HOSPITAL information which has helped and influenced the solution of many of them.

C. L. MCVILLY

Secretary, Charities Board of Victoria
Melbourne, Australia

New Zealand

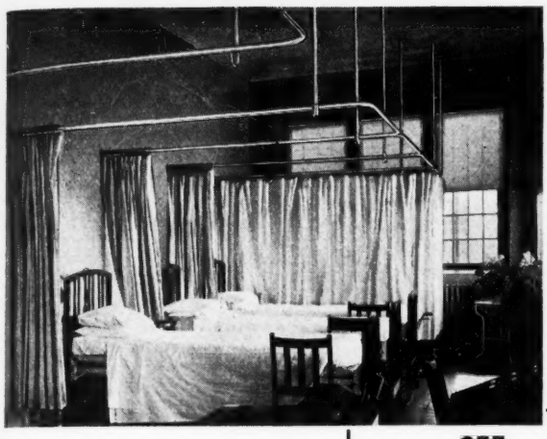
My board controls three hospitals besides a large home for old people in New Zealand and your journal is very much sought after by the executive officers of these institutions.

I take this opportunity of expressing my sincere thanks to you for the information obtained from the journal. . . .

L. V. KERBY

Wanganui Hospital Board
Wanganui, New Zealand

ROOMS TO LET



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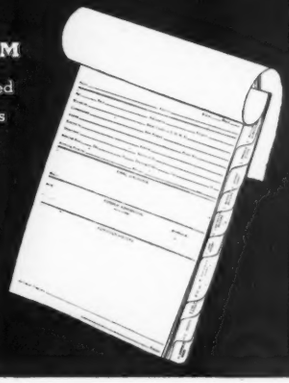

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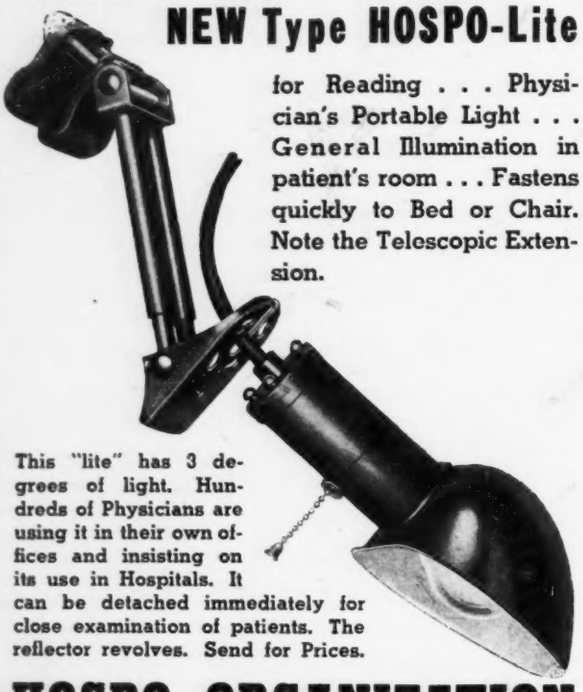

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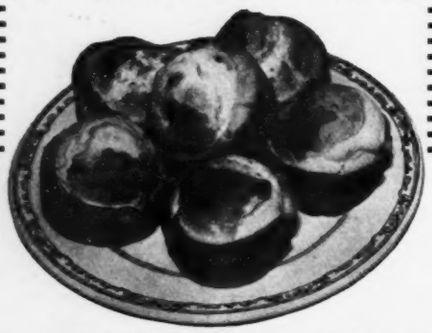

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This was the first overseas hospital journal with which I became acquainted early in my hospital career, which has now extended over twenty-three years. Much valuable and useful information has come to me from its pages, and the international viewpoint taken by this journal is, I am sure, appreciated by hospital executives in British countries.

It must give the founder great satisfaction to know that The MODERN HOSPITAL is so widely read and appreciated today.

Managing Secretary
Palmerston North Hospital Board
Palmerston North, New Zealand

As medical superintendent of the Auckland District Hospital which, it is claimed, is the largest hospital in the southern hemisphere, may I be allowed to express to you my gratitude for the great help I have received from time to time . . . from the advertisements which are . . . so well classified and so honest in the endeavour to be of real use to hospitals. . . .

Medical Superintendent
Auckland Hospital
Auckland, New Zealand

Maternity Care Will Be Different

(*Continued from page 72*)

In still more scantily populated areas, instead of bringing the patient to the hospital it may be advisable to take the hospital facilities and the obstetrician to the patient. Subsidized either by the state (in its larger sense) or by some foundation, hospitals could be established that could act as medical centers for the activities of communities covering areas of from 100 to 150 miles in diameter, or a radius of 75 miles.

Younger men recently graduated as residents from large institutions could be located in such a center and provided with a suitable salary. The services of such a man should be made available to the public only upon the request of the family doctor. Prenatal examinations and advice, either at the hospital or in the home, should be a part of his duties. A specially built automobile for traveling all sorts of roads in all kinds of weather and capable of carrying complete operating equipment should be placed at his disposal.

When Doctor X, in a remote district, finds that he needs help at his delivery, instead of trying to find a colleague or friend to come to give the anesthetic, he will telephone the hospital. The hospital can respond by sending out the well trained man, nurses and all equipment necessary for operative work, and the delivery can be made at the patient's home.

The near future may, then, find three types of provision made for maternity care: (1) the large metropolitan hospital serving densely populated communities; (2) the nursing home for small urban centers, supplemented by the services of a specialist, readily available by airplane from the large hospital, and (3) the patient's home in scantily populated districts with the family doctor having at call, without cost, the facilities of a subsidized service capable of bringing hospital equipment and well trained help.